Adjust Link Inner Bushing Replacement

Special Tools

KM-906-B

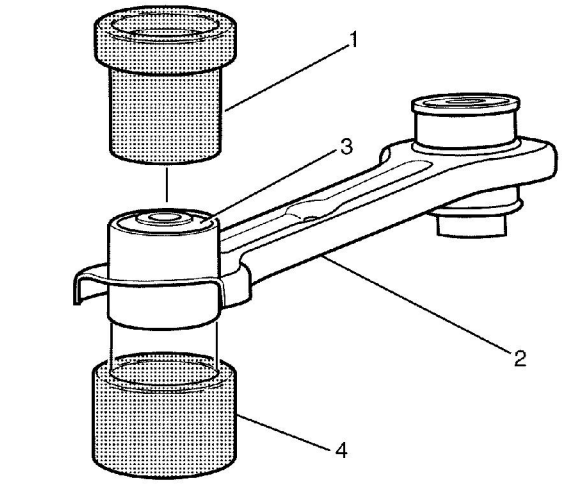
Control Arm Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the I-Link. Refer to Adjust Link Replacement.



Note: It is recommended to observe the orientation and depth of the I-Link outer bushing (3) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect I-Link outer bushing (3) installation.

3. Remove the I-Link inner bushing (3) from the I-Link (2) using the KM-906-B (1, 4).
4. Inspect all parts for wear and damage.

Installation Procedure

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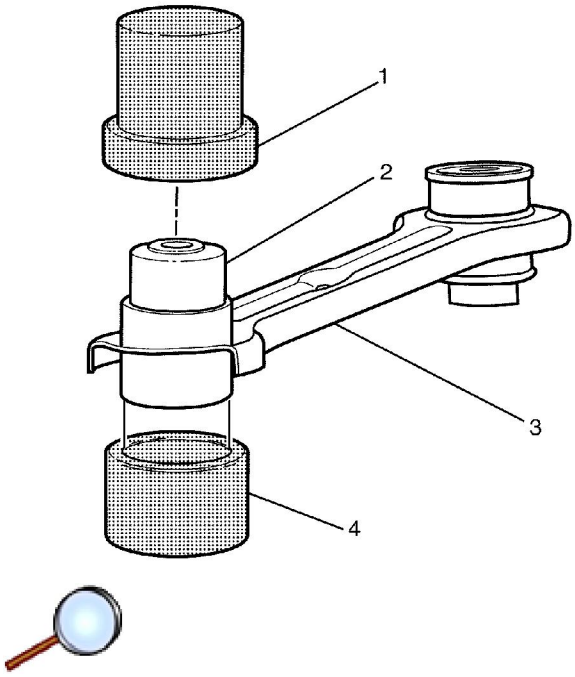


Note: The I-Link bushing must be centred in the I-Link.

1. Install the I-Link inner bushing (2) using the KM-906-B (1, 4).
2. Install the I-Link (3). Refer to Adjust Link Replacement.
3. Remove the safety stands.
4. Lower the vehicle to the ground.

Adjust Link Outer Bushing Replacement

Special Tools

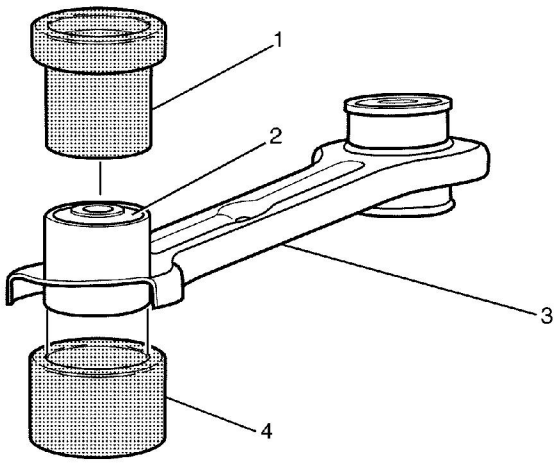
KM-906-B Control Arm Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the I-Link. Refer to Adjust Link Replacement.



Note: It is recommended to observe the orientation and depth of the I-Link outer bushing (3) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect I-Link outer bushing (3) installation.

3. Remove the I-Link outer bushing (3) from the I-Link (2) using the KM-906-B (1, 4).
4. Inspect all parts for wear and damage.

Installation Procedure

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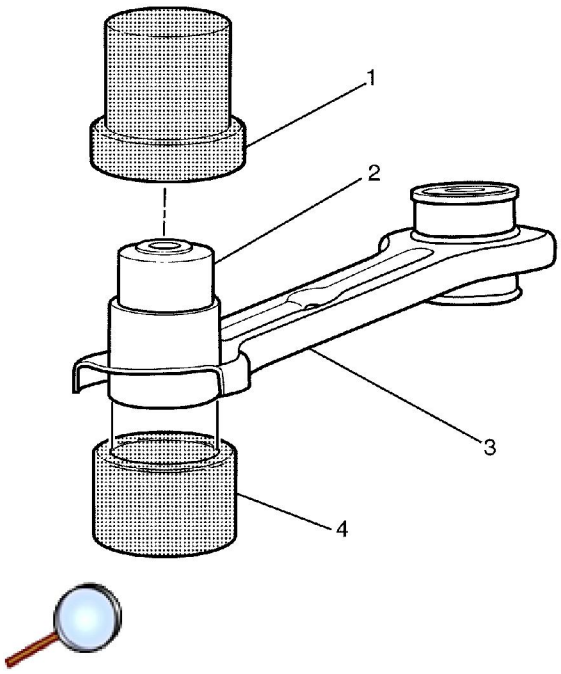


Note: The I-Link bushing must be centred in the I-Link.

1. Install the I-Link outer bushing (2) using the KM-906-B (1, 4).
2. Install the I-Link (3). Refer to Adjust Link Replacement.
3. Remove the safety stands.
4. Lower the vehicle to the ground.

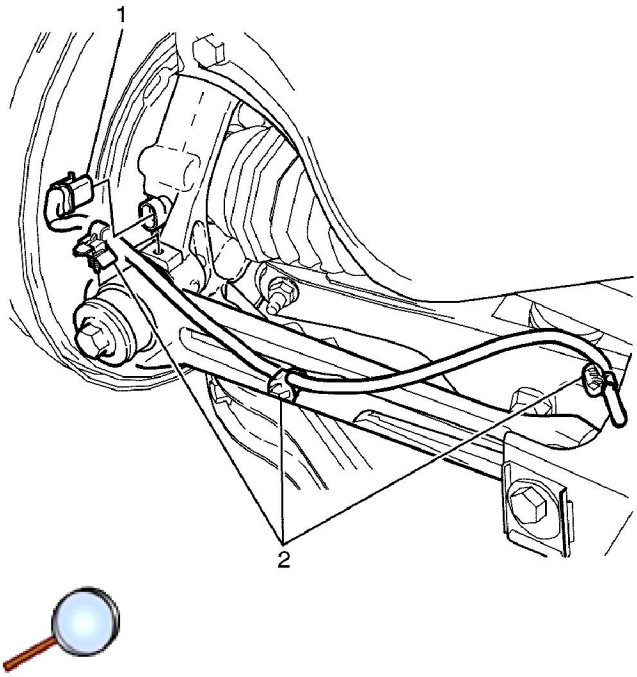
Adjust Link Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.



3. Disconnect the wheel speed sensor electrical connector (1).
4. Detach the wheel speed sensor wiring harness retainers (2).

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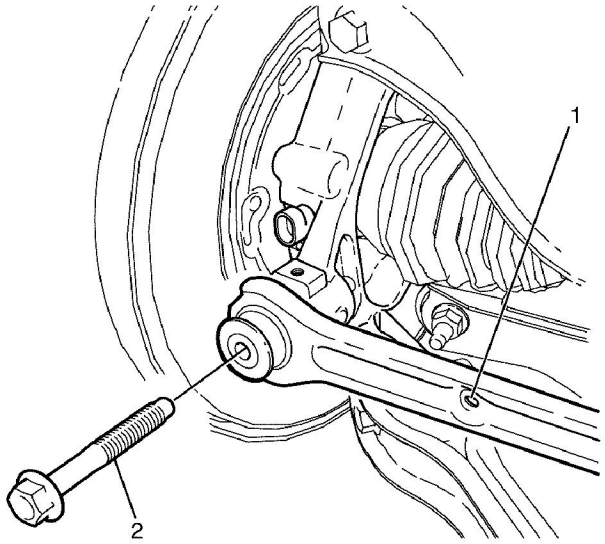
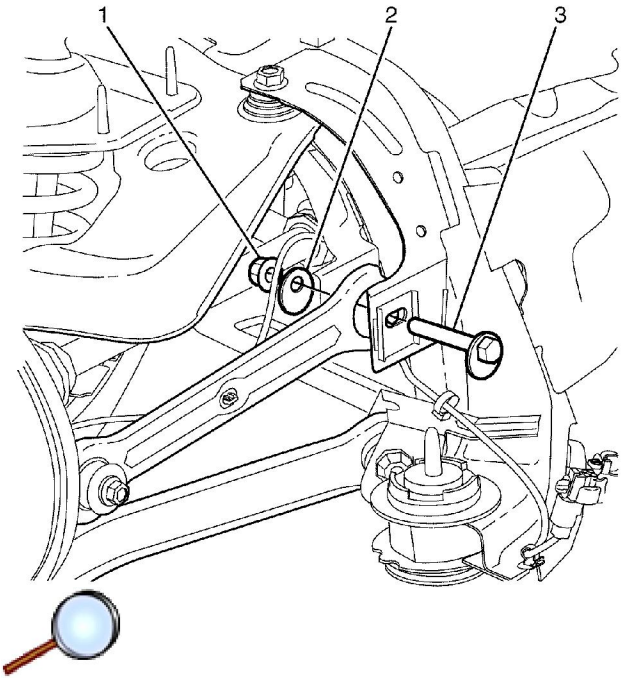


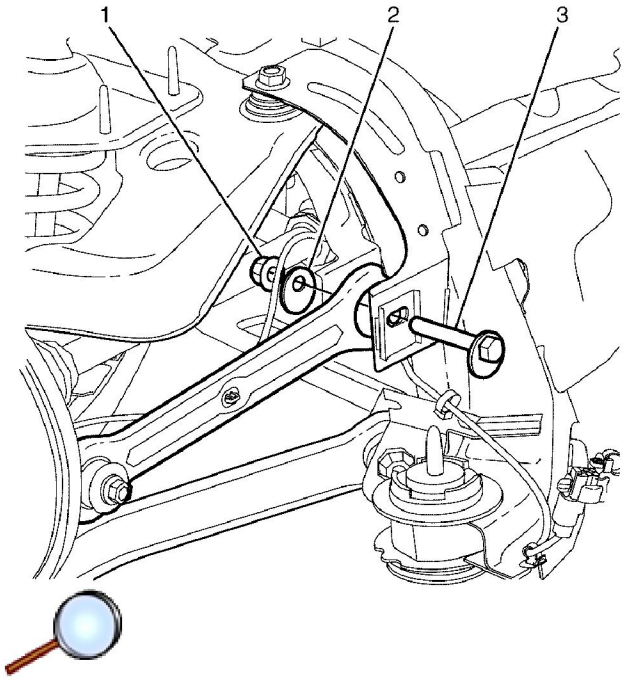
5. Remove the I-Link to knuckle retaining bolt (1).



note: Mark the I-Link to subframe retaining bolt (3) in relation to the subframe before removing the I-Link to subframe retaining nut (1).

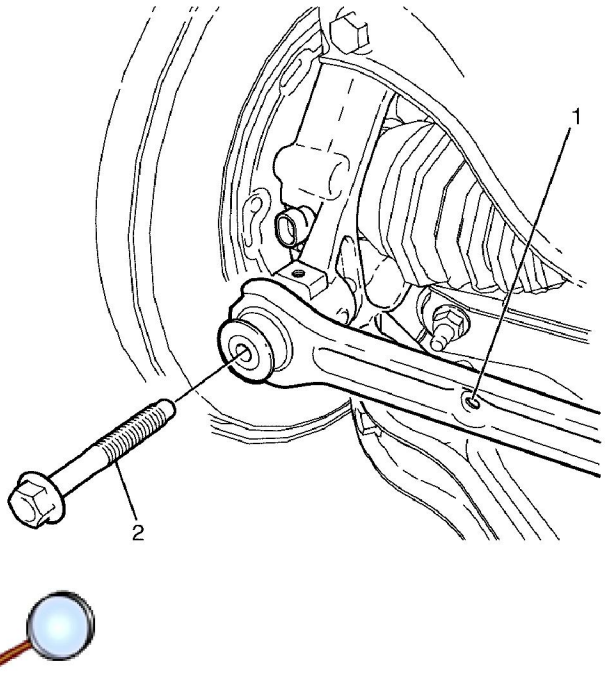
6. Remove the I-Link to subframe retaining nut (1), eccentric washer (2) and retaining bolt (3).
7. Discard the I-Link to subframe retaining nut (1).
8. Remove the I-Link (4) from the subframe.

Installation Procedure



Note: The I-Link to subframe retaining bolt and nut must not to be fully tightened at this stage.

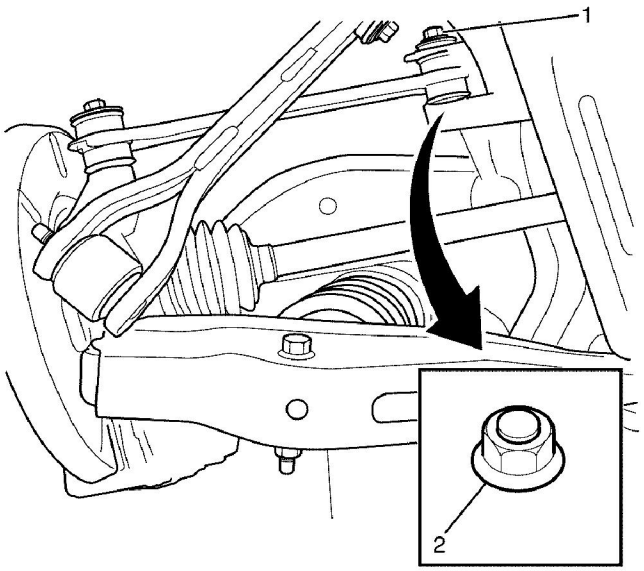
1. Install the I-Link (4) into the subframe.
2. Install the I-Link to subframe retaining bolt (3), eccentric washer (2) and NEW nut (1).
3. Align the marking of the I-Link to subframe retaining bolt (3) in relation to the rear subframe marking.



Note: The I-Link to knuckle retaining bolt (1) must not to be fully tightened at this stage.

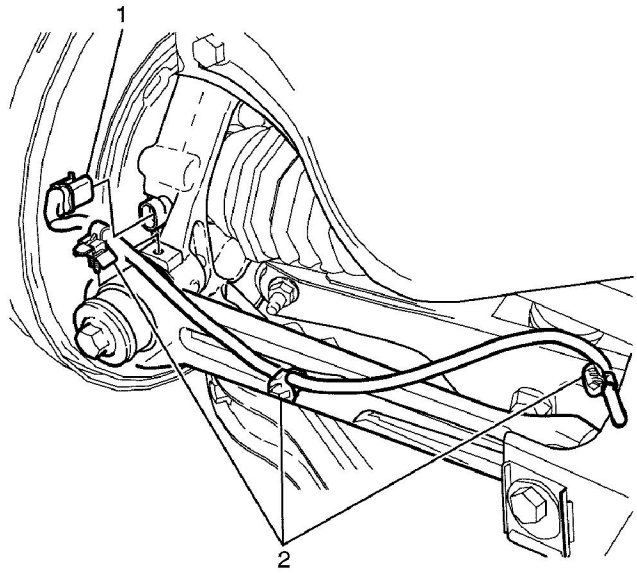
4. Install the I-Link to knuckle retaining bolt (1).

Caution: Refer to Fastener Caution in the Preface section.

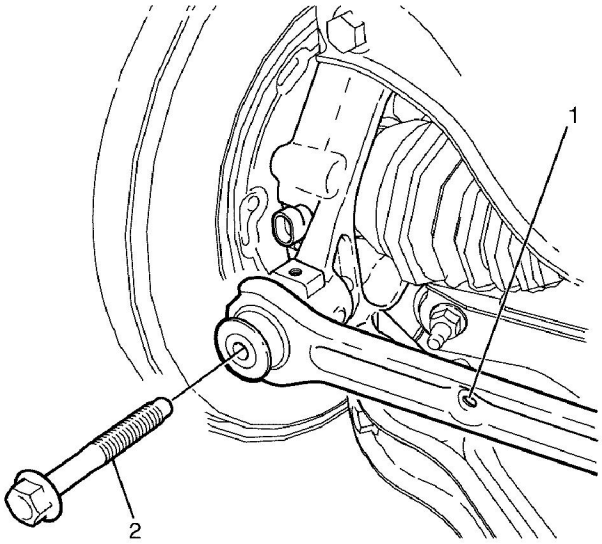


Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nut.

5. Tighten the I-Link to subframe retaining nut (1) to 175 N·m (129 lb ft).



6. Connect the wheel speed sensor electrical connector (1).
7. Attach the wheel speed sensor wiring harness retainers (2).



8. Tighten the I-Link to knuckle retaining bolt (1) to 140 N·m (103 lb ft).
9. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

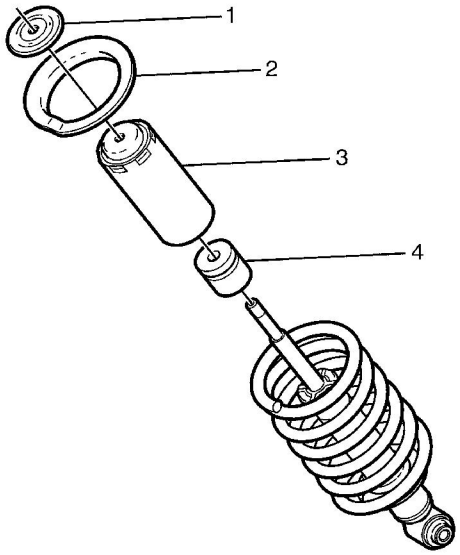
Coil Spring Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheels. Refer to Tire and Wheel Removal and Installation.
3. Remove the ESC strut assembly. Refer to Strut Assembly Replacement.
4. Remove the strut assembly support mount. Refer to Rear Suspension Strut Mount Replacement.



5. Remove the spring insulator (2).
6. Note the orientation and remove the lower washer (1).
7. Remove the dust shield (3).
8. Remove the compression bumper (4).

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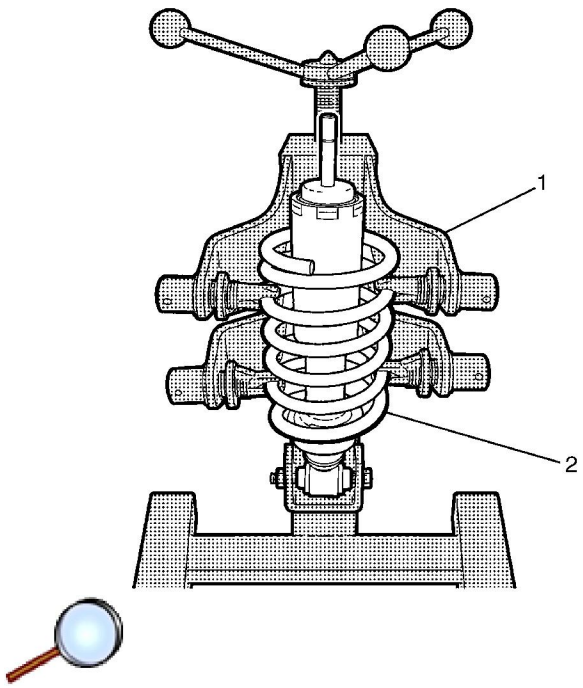
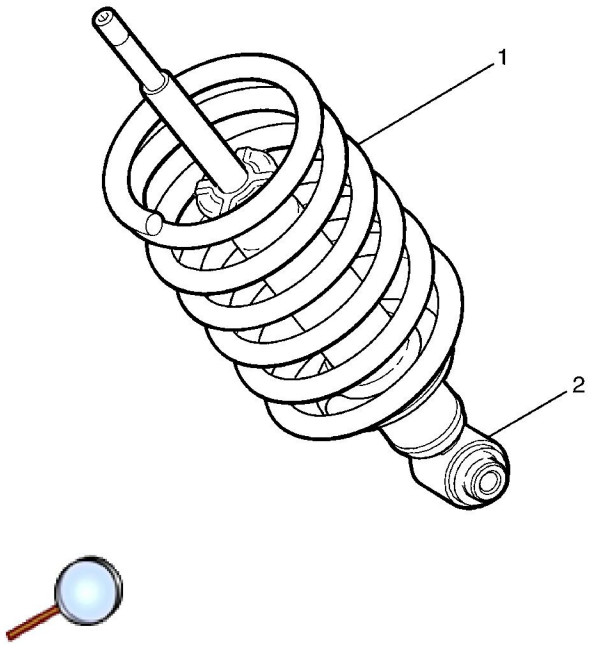
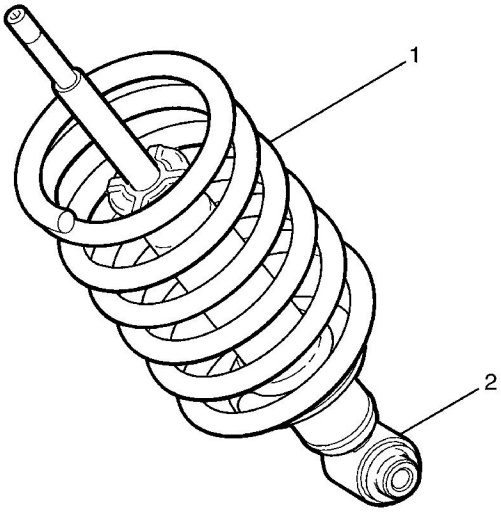


9. Release and remove the spring compressor (1) from the coil spring (2).

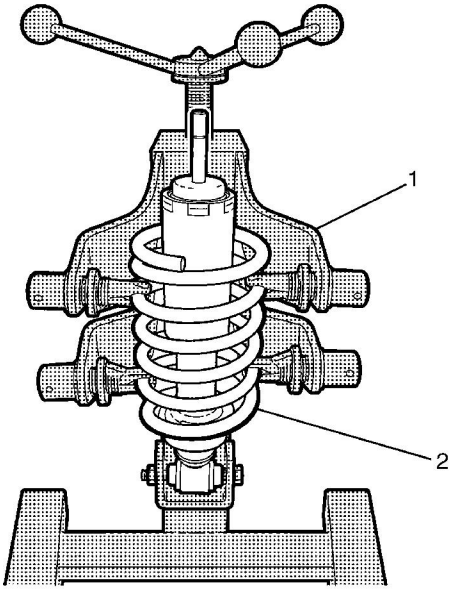


10. Remove the coil spring (1) from the shock absorber (2).
11. Inspect parts for wear and damage.

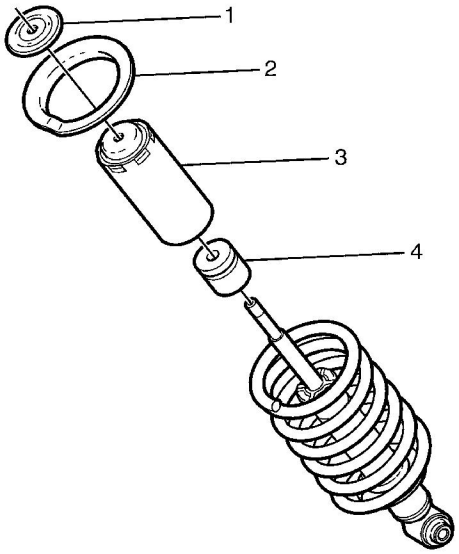
Installation Procedure



1. Install the coil spring (1) to the shock absorber (2).



2. Compress the coil spring (2) using the spring compressor (1).



3. Install the compression bumper (4).
4. Install the dust shield (3).
5. Note the orientation and install the lower washer (1).
6. Install the spring insulator (2).
7. Install the rear strut assembly support mount. Refer to Rear Suspension Strut Mount Replacement.
8. Install the rear strut assembly. Refer to Strut Assembly Replacement.
9. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
10. Remove the safety stands.
11. Lower the vehicle to the ground.

Control Arm Bushing Replacement

Special Tools

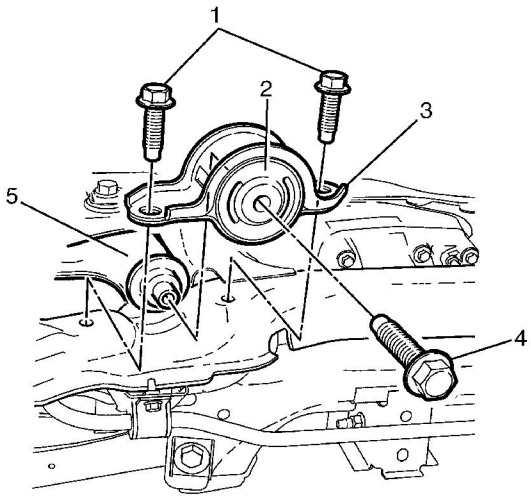
KM-619 Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear frame. Refer to Rear Frame Replacement.



Note: Mark the location of the pivot bushing bracket relative to the rear frame for correct re-assembly.

3. Remove the upper control arm pivot bushing to upper control arm retaining bolt (4).

Note: If both upper control arm pivot bushings are to be replaced at the same time, the upper control arm pivot bushing brackets must be marked as left or right. In all cases, the upper control arm pivot bushing bracket must be marked with an arrow facing towards the front of the vehicle.

4. Remove the upper control arm pivot bushing bracket to subframe retaining bolts (1).
5. Remove the upper control arm pivot bushing (2) and bracket (3) assembly from the upper

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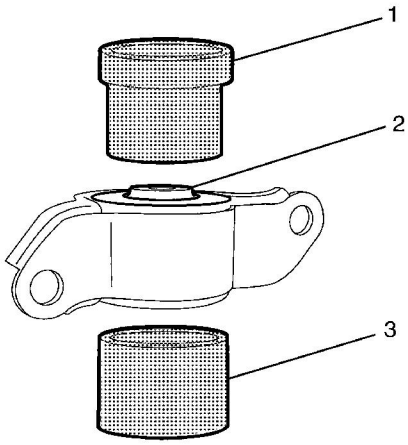
control arm (5).

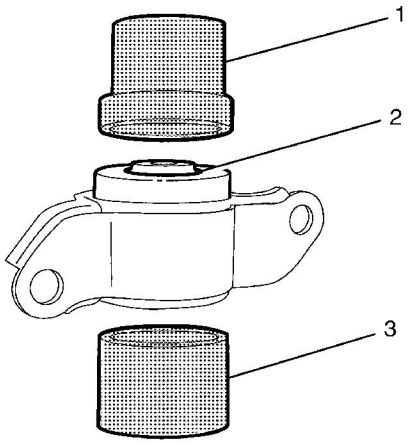


Note: The orientation of the asymmetrical bush is critical to its function. Observe the orientation and depth of the upper control arm pivot bushing (2) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect upper control arm pivot bushing (2) installation.

Note: The upper control arm pivot bushing (2) must be lubricated with soapy water solution to ease the removal process.

6. Remove the upper control arm pivot bushing (2) using the KM-619 (1, 3).
7. Inspect all parts for wear and damage.

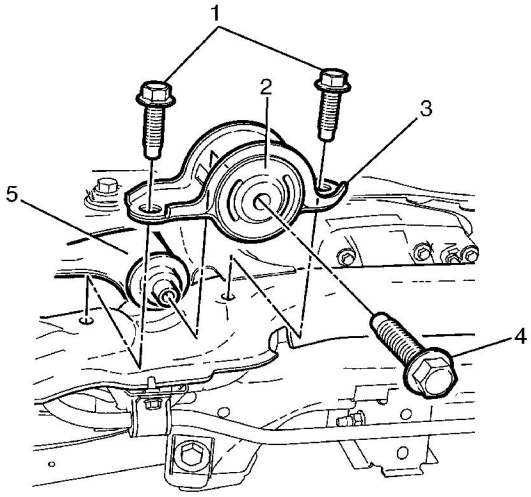
Installation Procedure



Note: The upper control arm pivot bushing (2) must be lubricated with soapy water solution to ease the installation process.

Note: Before installing, the upper control arm pivot bushing (2) must be correctly aligned and orientated. The depth to which the upper control arm pivot bushing (2) is going to travel must also be observed and maintained.

1. Install the upper control arm pivot bushing (2) to the upper control arm (3) using the KM-619 (1, 3).



Note: Align the pivot bushing bracket to the mark made prior to removal.

Note: The upper control arm pivot bushing bracket directional marks must be observed before installation.

2. Install the upper control arm pivot bushing (2) and bracket (3) assembly to the upper control arm (5).

   Caution: Refer to Fastener Caution in the Preface section.

3. Install the upper control arm pivot bushing bracket to subframe retaining bolts (1) and tighten to **40 N·m (29 lb ft)**.

   Tighten the bolts a final pass 90 Degrees.

4. Install the upper control arm pivot bushing to upper control arm retaining bolt (4) and tighten to **170 N·m (125 lb ft)**.
5. Install the rear frame. Refer to Rear Frame Replacement.
6. Remove the safety stands.
7. Lower the vehicle to the ground.
8. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

Knuckle Bushing Replacement- Lower

Special Tools

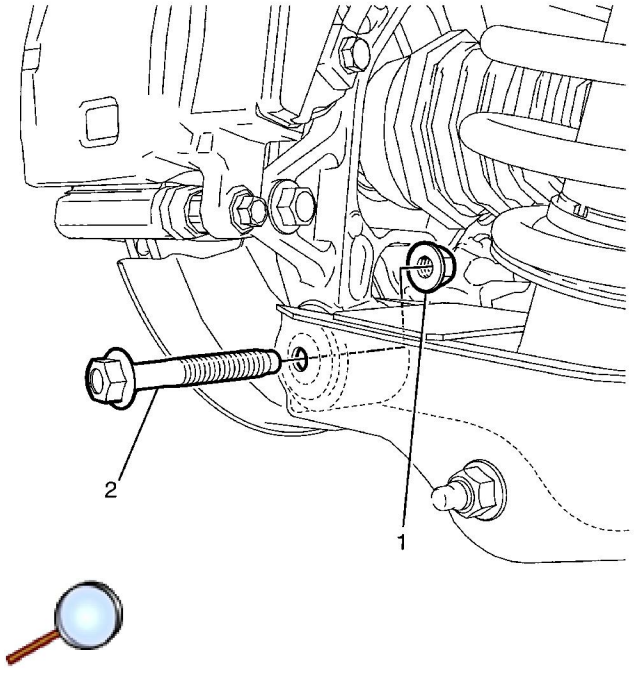
KM-619 Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.
3. Support the lower control arm with a suitable jack.



Note: Prevailing torque nuts must be discarded after removal.

4. Remove the lower control arm to knuckle retaining bolt (2) and nut (1).

   Discard the nut.

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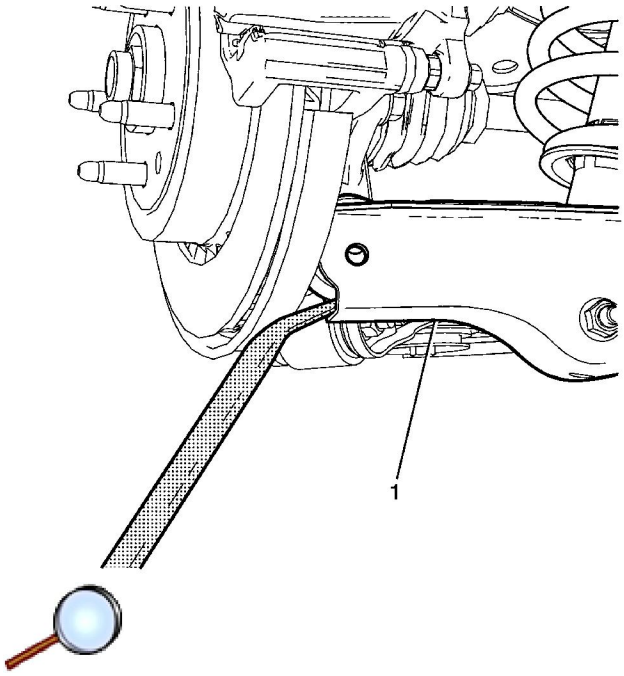
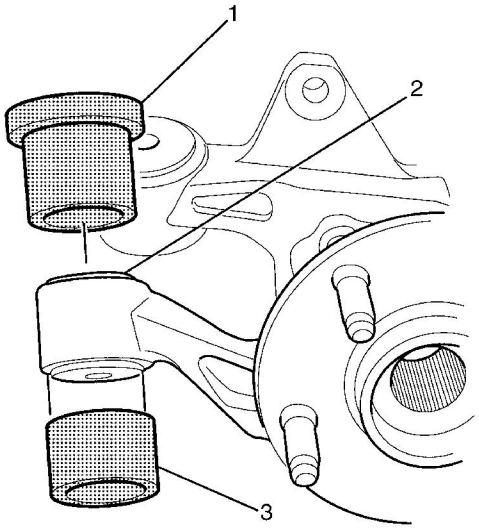


Note: Do not apply pressure to the rear brake disc backing plate while levering.

5. Detach the lower control arm (1) using a suitable pry bar.

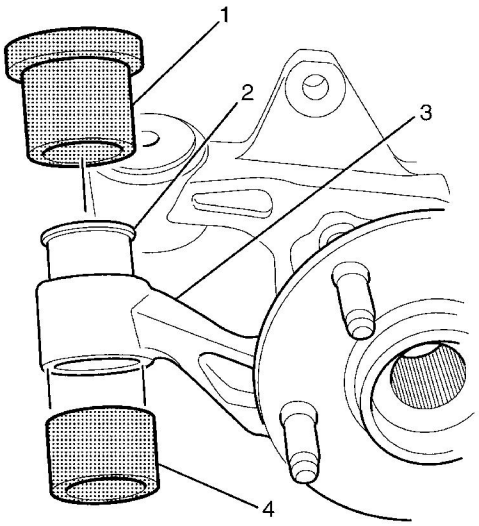
   Reposition the jack as necessary.



Note: It is recommended to observe the orientation and depth of the lower control arm to knuckle bushing (2) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect lower control arm to knuckle bushing (2) installation.

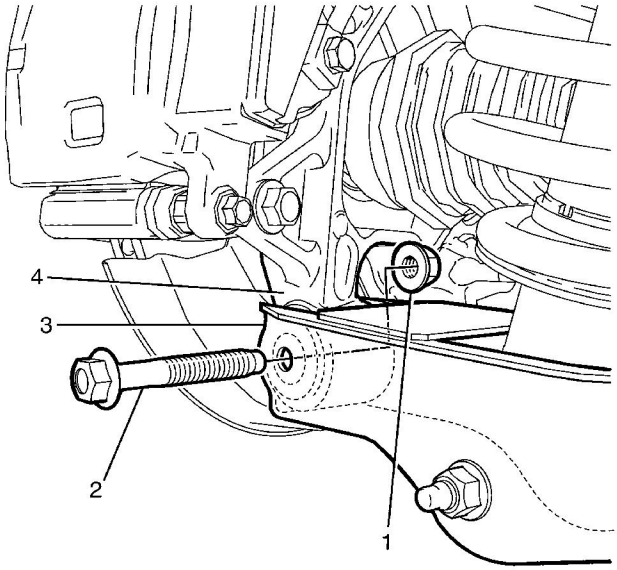
6. Remove the lower control arm to knuckle arm bushing (2) using the KM-619 (1, 3).
7. Inspect all parts for wear and damage.

Installation Procedure



Note: Before installing, the lower control arm to knuckle arm bushing (2) must be correctly aligned and orientated.

1. Install the lower control arm to knuckle arm bushing (2) to the knuckle (3) using the KM-619 (1, 4).



2. Connect the lower control arm (3) to the knuckle (4).

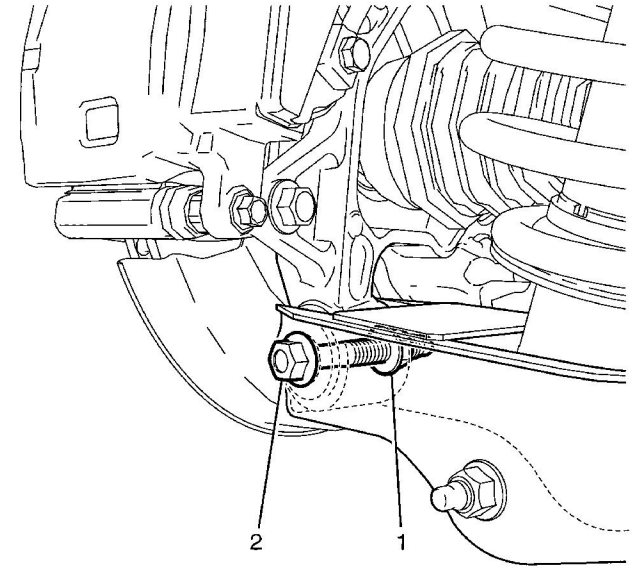
Note: The lower control arm to knuckle arm retaining bolt (2) and nut (1) must not to be fully tightened at this stage.

3. Install the lower control arm to knuckle retaining bolt (2) and NEW nut (1).

   Do not fully tighten at this stage.

4. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
5. Remove the safety stands.
6. Lower the vehicle to the ground.
7. Bounce the vehicle several times to settle the suspension.

Caution: Refer to Fastener Caution in the Preface section.



Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

8. Install the lower control arm to the knuckle retaining bolt (2) and NEW nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

   Tighten the bolt and nut a final pass 120 Degrees.

Knuckle Replacement

Special Tools

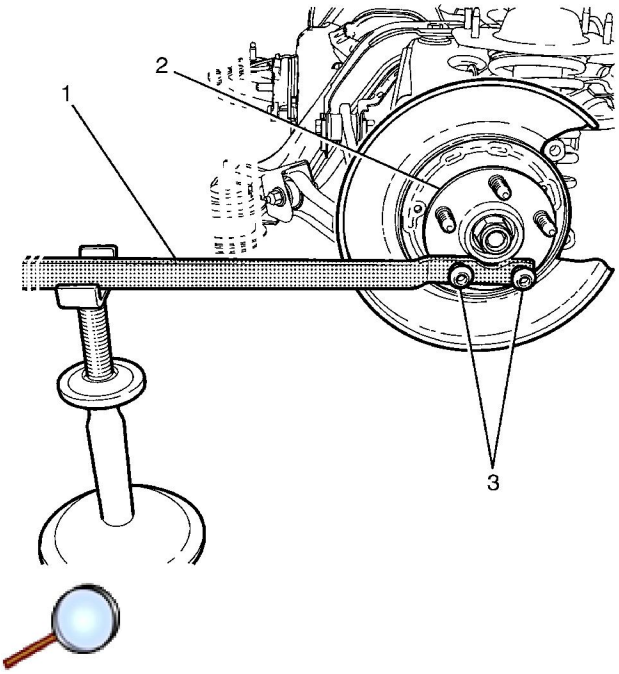
- 7208 Drive Shaft Remover.
- KM-468 Hub Holding Tool.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.
3. Remove the rear brake disc. Refer to Rear Brake Rotor Replacement.



4. Install the KM-468 (1) to the wheel hub (2) with two inverted wheel nuts (3).
5. Support the KM-468 (1) outer end on a safety stand.

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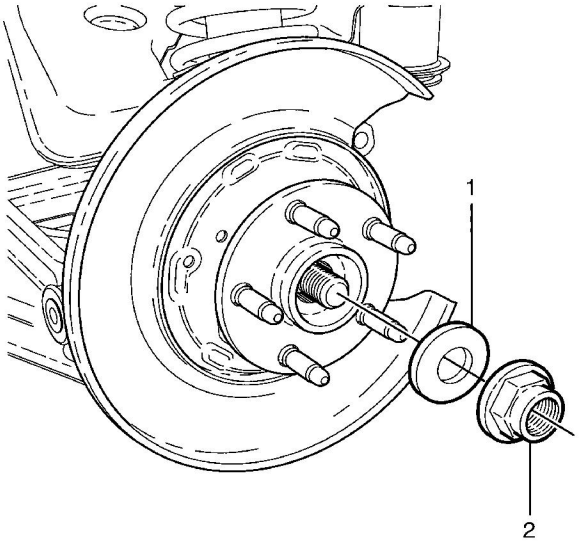
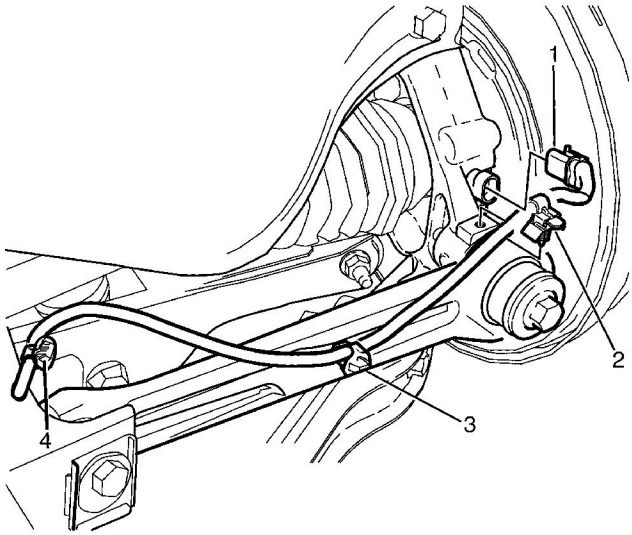


Note: The wheel drive shaft retaining nut (2) and washer (1) must be discarded after removal.

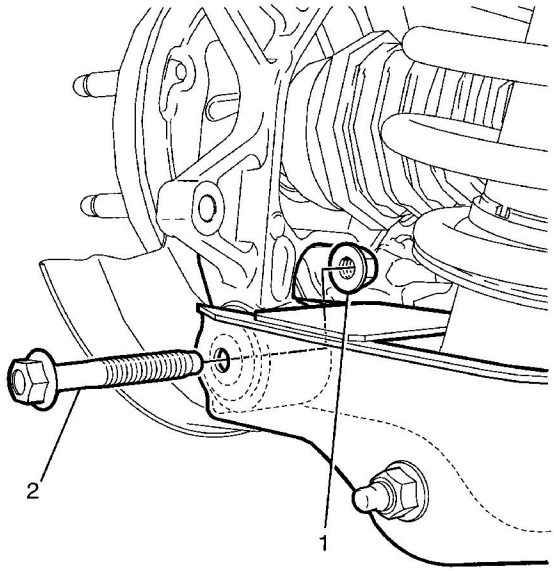
6. Remove the wheel drive shaft retaining nut (2) and washer (1).
   - Discard the nut.
   - Discard the washer.



Note: The wheel speed sensor cable must be secured to protect it from damage.

7. Disconnect the wheel speed sensor electrical connector (1).

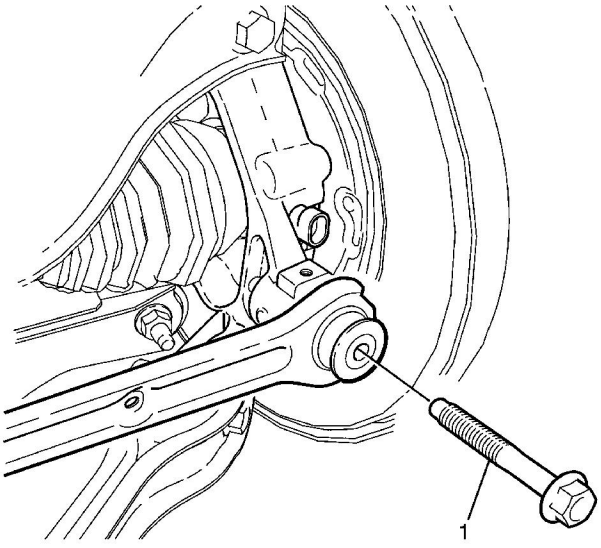
8. Detach the wheel speed sensor wiring harness mounting clips (2, 3 and 4).



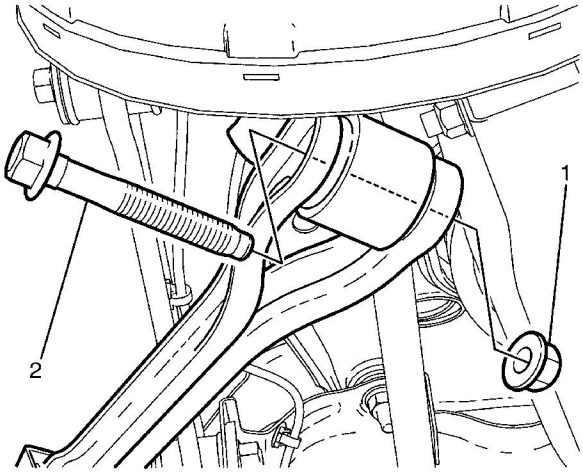
Note: Prevailing torque nuts must be discarded after removal.

9. Remove the lower control arm to knuckle retaining bolt (2) and nut (1).

   Discard the nut.



10. Remove the I-Link to knuckle retaining bolt (1).

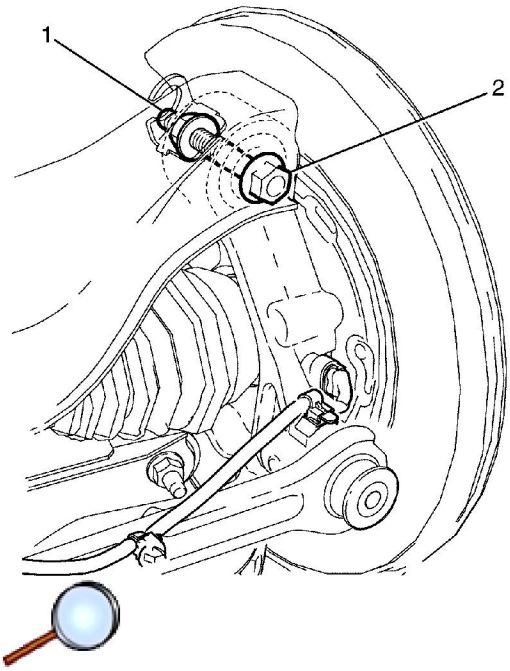


Note: Mark the location of the Y-Link to knuckle retaining bolt and nut relative to the Y-Link for correct re-assembly.

Note: Prevailing torque nuts must be discarded after removal.

11. Remove the Y-Link to knuckle retaining bolt (2) and nut (1).

    Discard the nut.

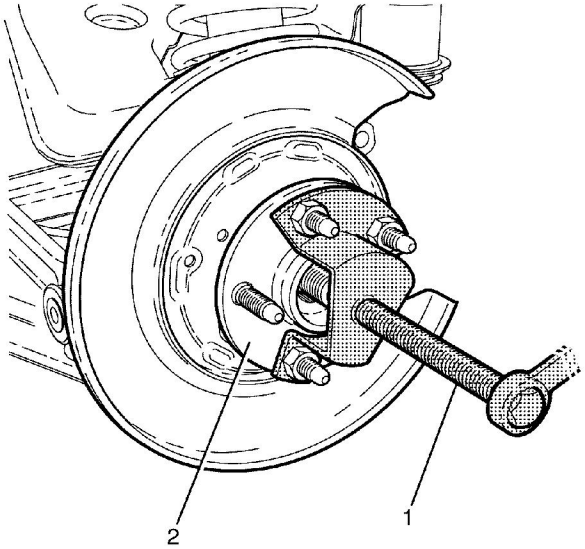


Note: Mark the location of the bolt and nut relative to the upper control arm for correct

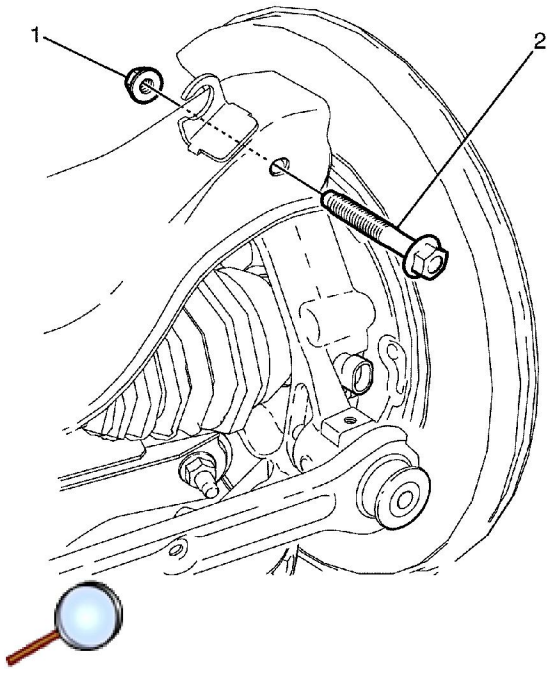
assembly.

Note: Do not remove the upper control arm to knuckle retaining bolt (2) and nut (1).

12. Loosen the upper control arm to knuckle retaining bolt (2) and nut (1).



13. Install the 7208 (1) to the wheel hub (2).
14. Press the wheel drive shaft from the wheel hub using the 7208 (1).
15. Remove the 7208 (1) from the wheel hub (2).



Note: Prevailing torque nuts must be discarded after removal.

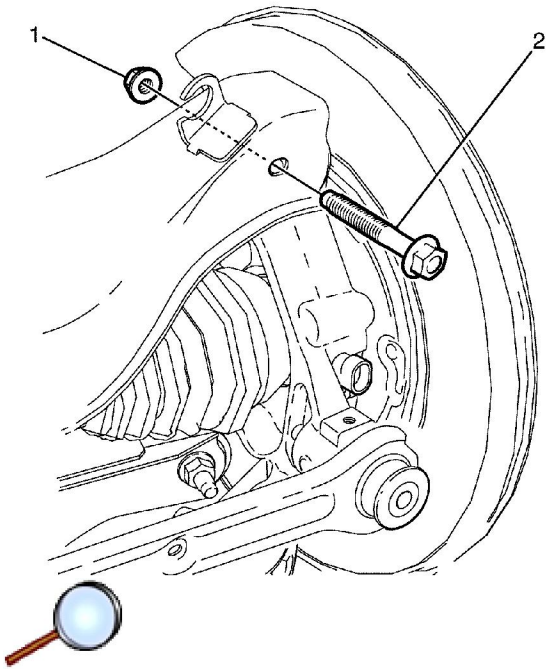
16. Remove the upper control arm to knuckle retaining bolt (2) and nut (1).

Discard the nut.

17. Remove the wheel hub and knuckle assembly.
18. Disassemble the wheel hub and knuckle assembly. Refer to Rear Wheel Bearing and Hub Replacement.

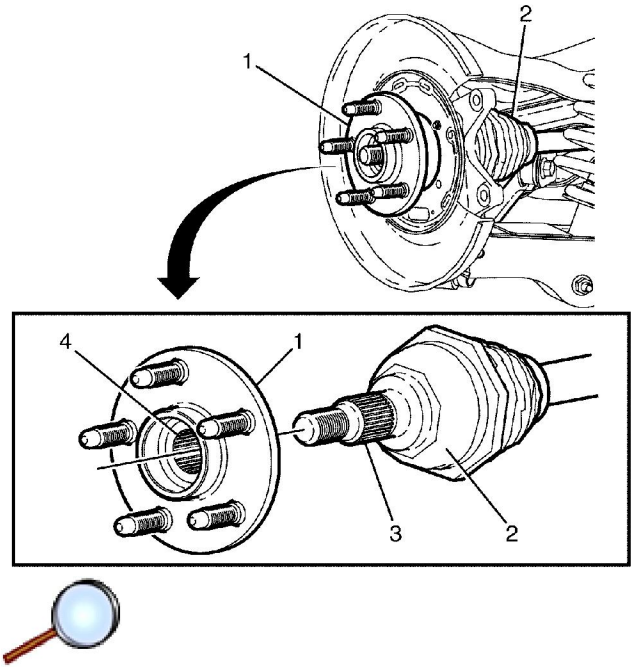
Installation Procedure

1. Assemble the wheel hub and knuckle assembly. Refer to Rear Wheel Bearing and Hub Replacement.
2. Install the wheel hub and knuckle assembly to the upper control arm.



Note: The upper control arm to knuckle retaining bolt (2) and NEW nut (1) must not to be fully tightened at this stage.

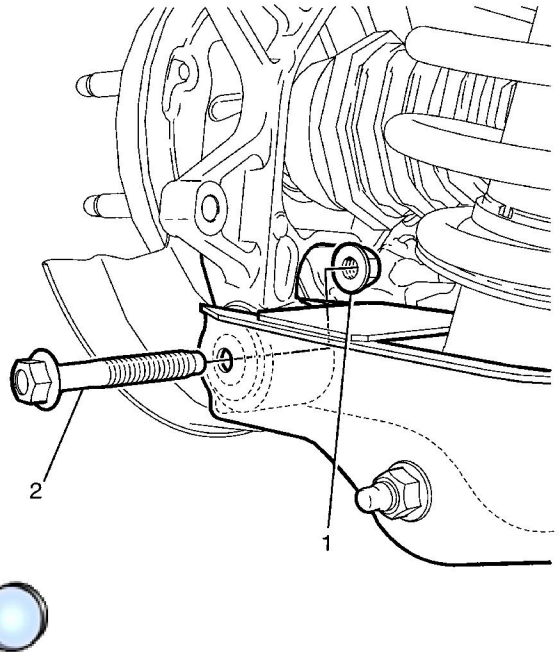
3. Install the upper control arm to knuckle retaining bolt (2) and NEW nut (1).



Note: Lightly lubricate the wheel drive shaft outer splined end (3) with the recommended differential lubricant.

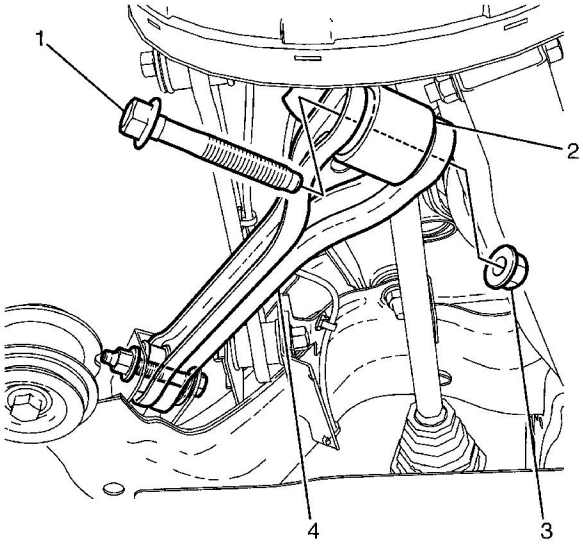
Note: Do not excessively push the wheel drive shaft (2) through the wheel hub (1).

4. Push the wheel drive shaft outer splined end (3) into the splined cavity (4) of the wheel hub (1).
5. Remove the wire used to support the wheel drive shaft.



Note: The lower control arm to knuckle retaining bolt (2) and NEW nut (1) must not to be fully tightened at this stage.

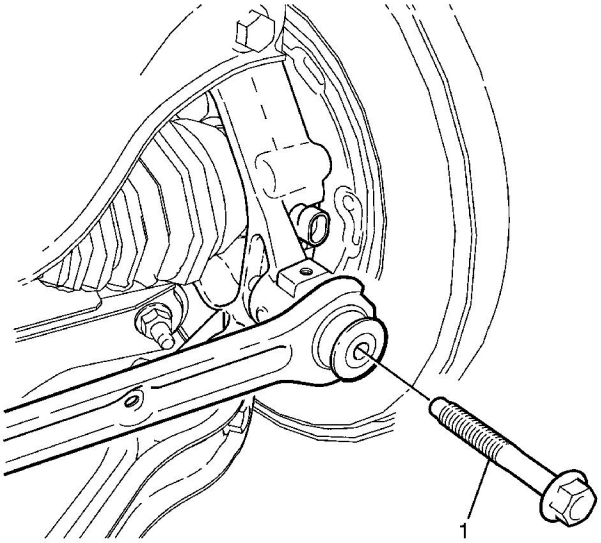
6. Install the lower control arm to knuckle retaining bolt (2) and NEW nut (1).



7. Install the Y-Link (4) to the knuckle (2).

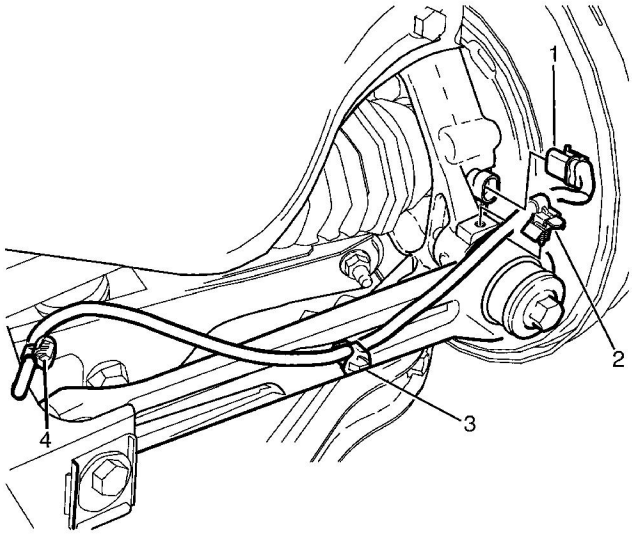
Note: The Y-Link to knuckle retaining bolt (1) and NEW nut (3) must not to be fully tightened at this stage.

8. Install the Y-Link to knuckle retaining bolt (1) and NEW nut (3).

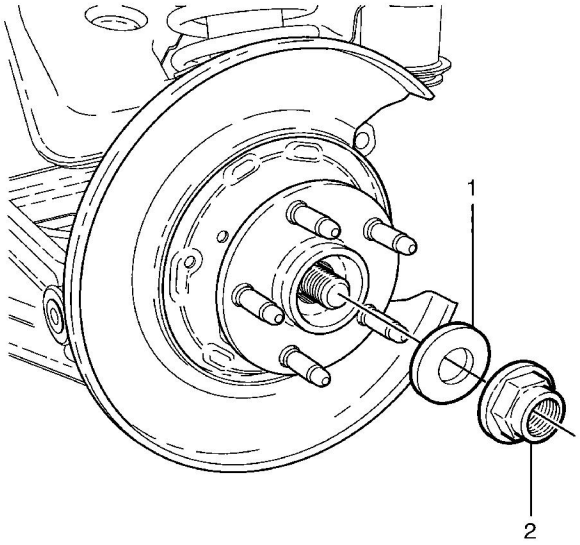


Note: The I-Link to knuckle retaining bolt (1) must not to be fully tightened at this stage.

9. Install the I-Link to knuckle retaining bolt (1).

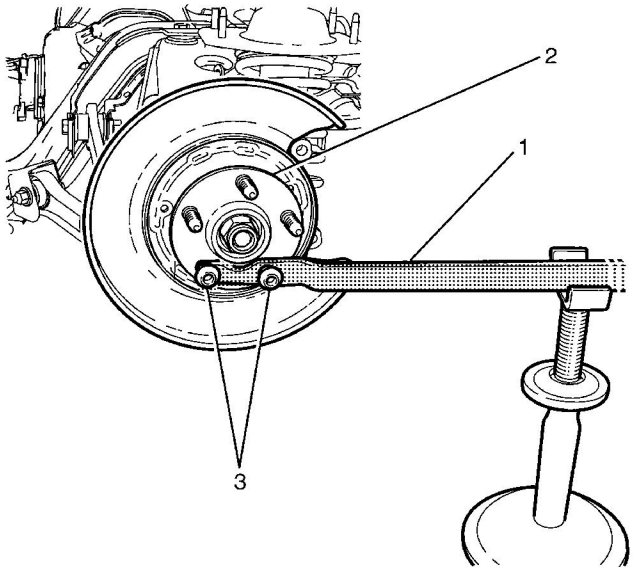


10. Connect the wheel speed sensor electrical connector (1).
11. Attach the wheel speed sensor wiring harness mounting clips (2, 3 and 4).



Note: A NEW wheel drive shaft retaining nut and NEW washer must be used when installing the wheel drive shaft.

12. Install the NEW wheel drive shaft retaining nut (2) and NEW washer (1).



13. Install the KM-468 (1) to the wheel hub (2) with two inverted wheel nuts (3) and tighten a first pass to **150 N·m (111 lb ft)**.
14. Support the KM-468 (1) outer end on a safety stand.

Caution: Refer to Fastener Caution in the Preface section.

Note: DO NOT EXCEED THE SPECIFIED TIGHTENING VALUES. PREMATURE BEARING FAILURE MAY RESULT.

15. There are two methods of tightening the wheel drive shaft retaining nut.
    - Preferred method.

Tighten
Tighten the nut on first pass to 150 N·m(111 lb ft).

Loosen
Loosen the nut on second pass by 180 Degrees.

Tighten
Tighten the nut on third pass to 425 N·m(313 lb ft).

- Crimp nut.
- Alternate Method

Tighten
Tighten the nut on first pass to 150 N·m(111 lb ft).

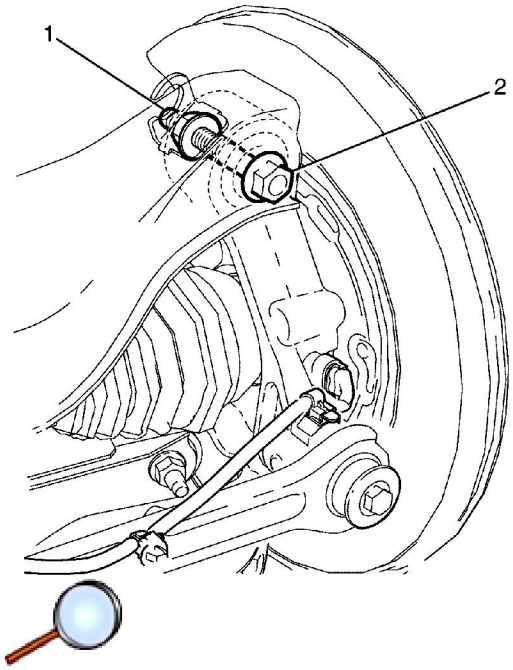
Loosen
Loosen the nut on second pass by 180 Degrees.

Tighten
Tighten the nut on the third pass to 50 N·m(37lb ft)

Tighten
Tighten the nut on the forth pass by 45 Degrees

- Crimp nut.

16. Install the rear brake disc. Refer to Rear Brake Rotor Replacement.
17. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
18. Remove the safety stands.
19. Lower the vehicle to the ground.
20. Bounce the vehicle several times to settle the suspension.

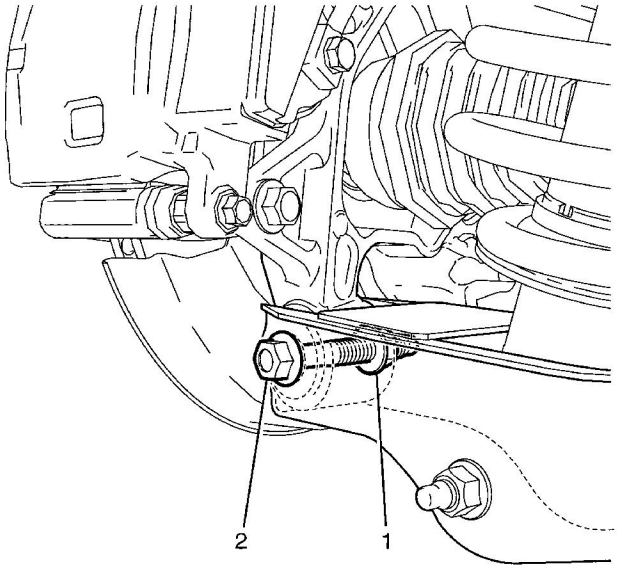


Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

Note: Align the bolt to the mark made prior to removal.

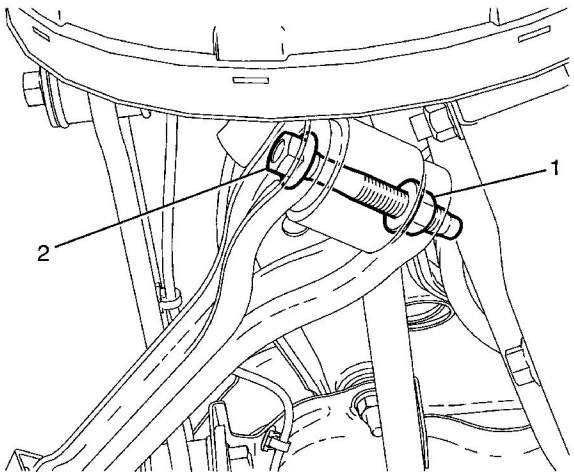
21. Install the upper control arm using the knuckle retaining bolt (2) and the NEW nut (1) and tighten a first pass to **60 N·m(44 lb ft)**.

Tighten the bolt and nut a final pass to 90 Degrees.



22. Install the lower control arm to the knuckle retaining bolt (2) and NEW nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

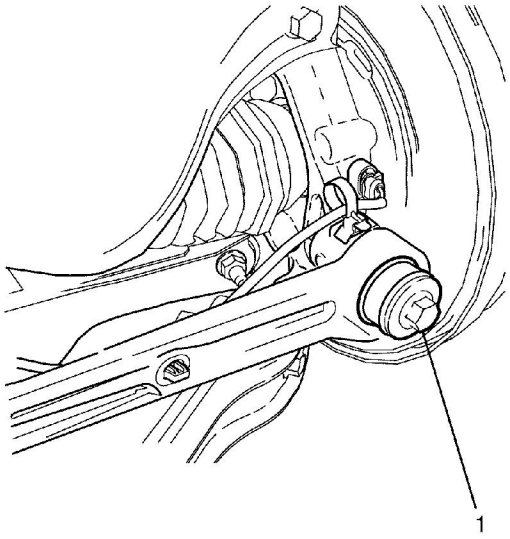
    Tighten the nut in a final pass 120 Degrees.



Note: Align the mark from bolt to Y-Link made prior to removal.

23. Install the Y-Link using the knuckle retaining bolt (2) and NEW nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

    Tighten the bolt and nut in a second pass 120 Degrees.



24. Install the I-Link using the knuckle retaining bolt (1) and tighten to **140 N·m (103 lb ft)**.
25. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

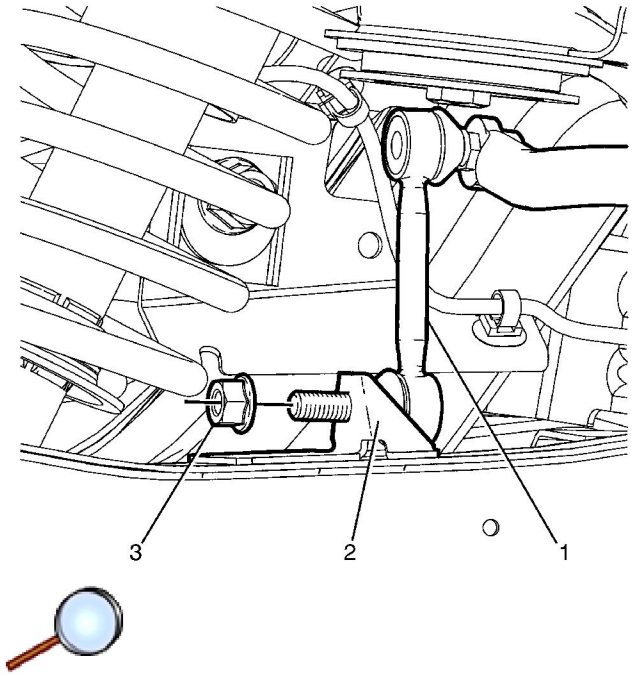
Lower Control Arm Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.
3. Support the lower control arm using a suitable jack.



Note: Prevailing torque nuts must be discarded after removal.

4. Remove the stabilizer bar link to lower control arm retaining nut (3).

   Discard the nut.

5. Disconnect the stabilizer bar link (1) from the lower control arm (2).

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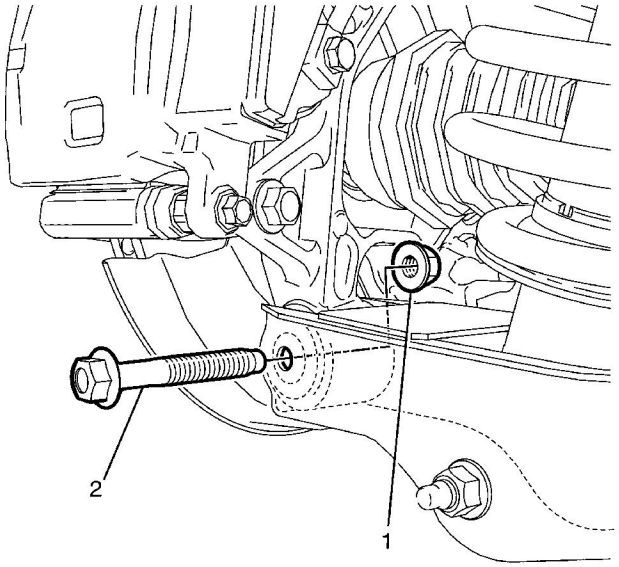
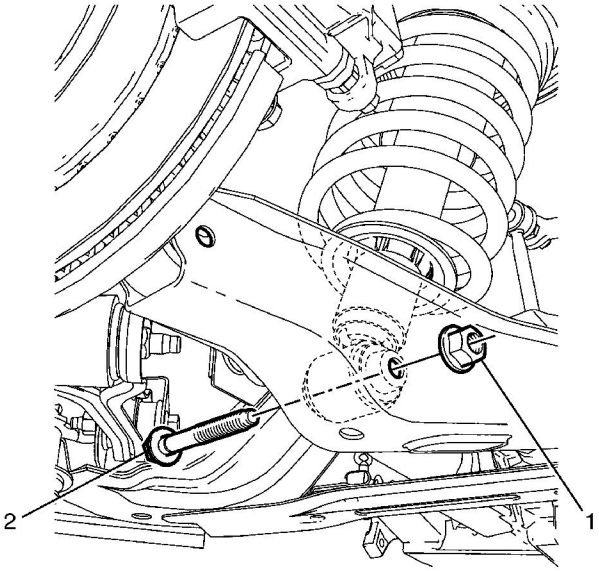


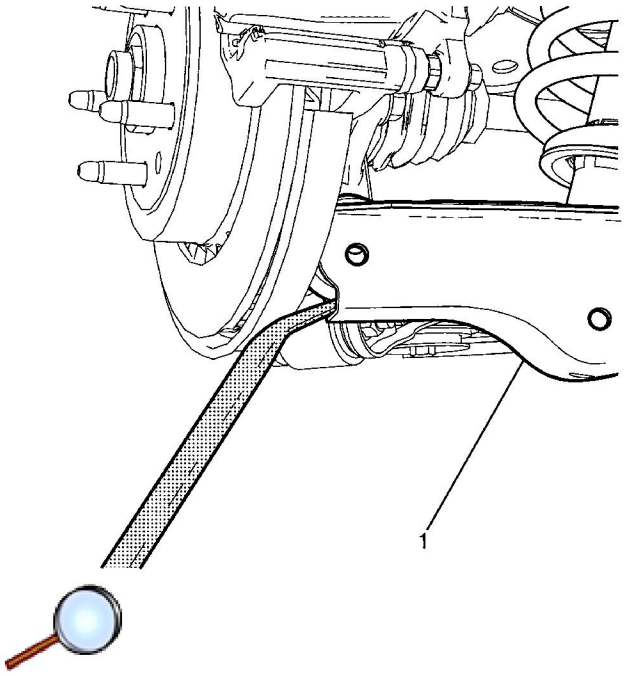
6. Remove the lower control arm to knuckle retaining bolt (2) and nut (1).

   Discard the nut.



7. Remove the lower control arm to strut assembly retaining bolt (2) and nut (1).

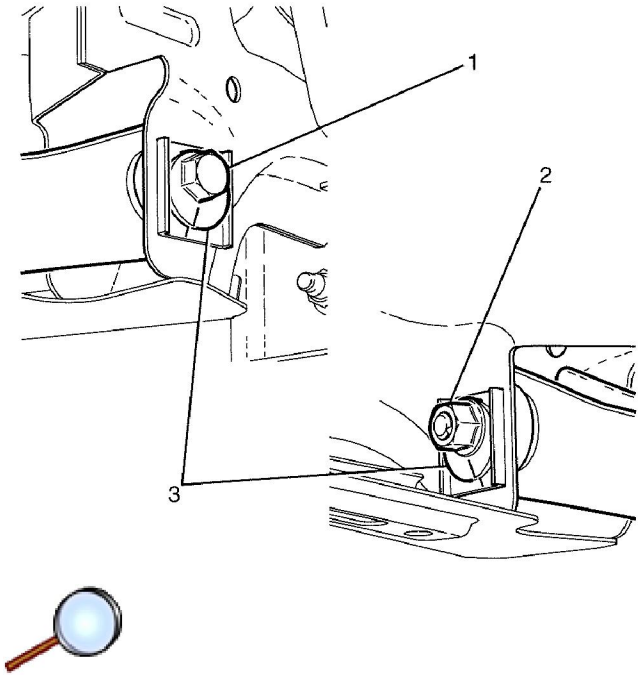
   Discard the nut.



Note: Do not apply pressure to the rear brake disc backing plate while levering.

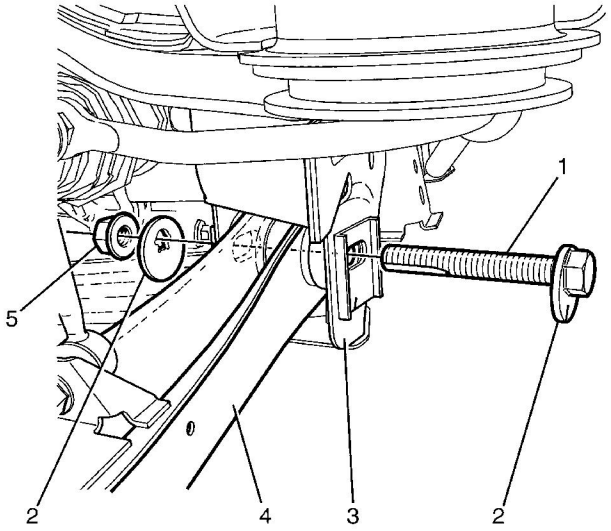
8. Detach the lower control arm (1) using a suitable pry bar.

   Reposition the jack as necessary.



Note: The lower control arm to subframe retaining bolt (1) and nut (2) eccentric washers (3) are used to adjust the rear suspension camber. One eccentric washer (3) is mounted directly to the head of the lower control arm to subframe retaining bolt (1).

9. Scribe the eccentric washers (3) with reference to their seating position relative to the subframe.

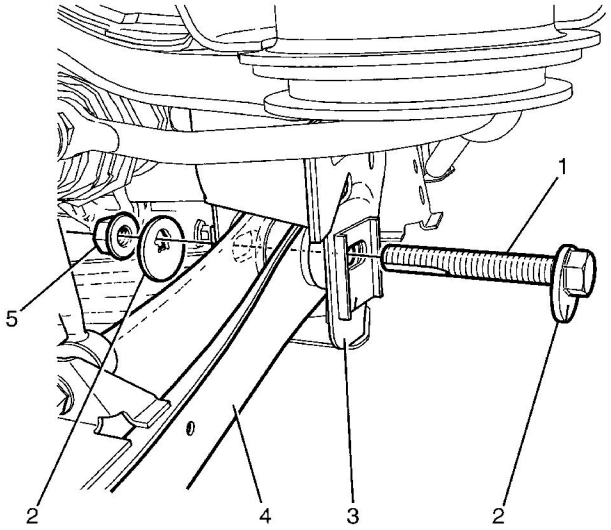


10. Remove the lower control arm to subframe retaining bolt (1) and nut (5).

    Discard the nut.

11. Remove the lower control arm (4) from the subframe (3).

Installation Procedure



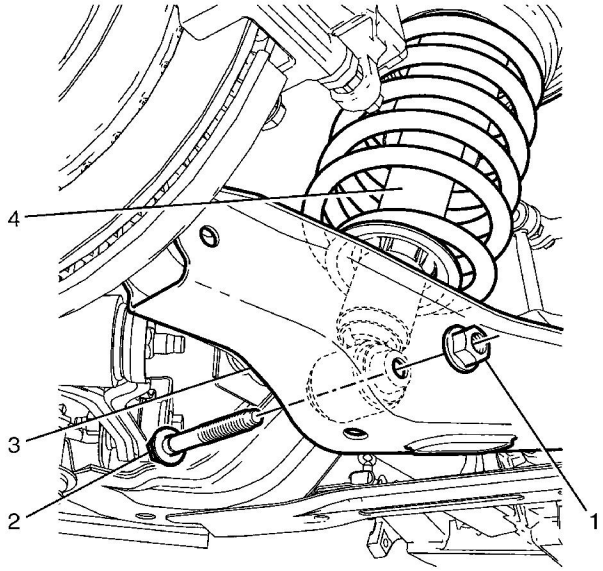
1. Install the lower control arm (4) into the subframe (3).

Note: The eccentric washers (2) must be fitted correctly in terms of their orientation and alignment marks.

Note: Do not fully tighten the lower control arm to subframe retaining bolt (1) and nut (5) at this stage.

2. Install the lower control arm to subframe retaining bolt (1).
3. Install the eccentric washer (2) and the NEW nut (5).

   Do not fully tighten at this stage.

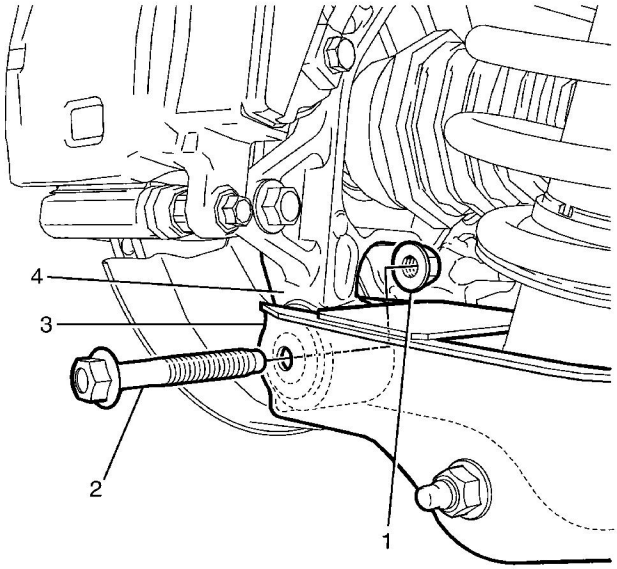


4. Connect the rear strut assembly (4) to the lower control arm (3).

   Note: Do not fully tighten the lower control arm to strut assembly retaining bolt (2) and nut (1) at this stage.

5. Install the lower control arm to strut assembly retaining bolt (2) and NEW nut (1).

   Do not fully tighten at this stage.

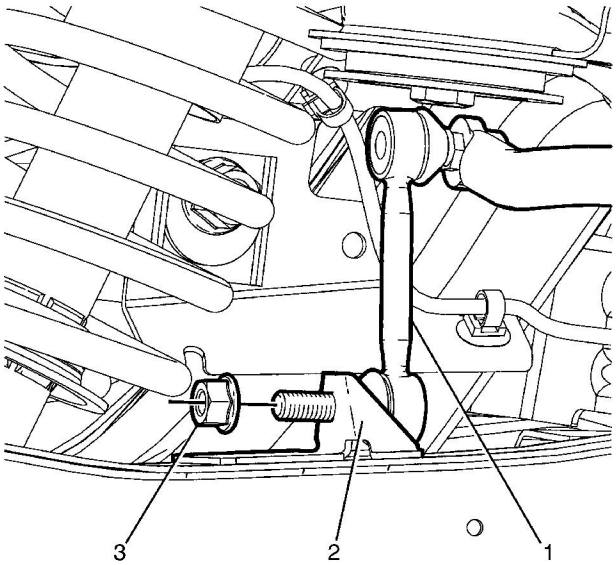


6. Connect the lower control arm (3) to the knuckle (4) using a suitable jack.

   Note: Do not fully tighten the lower control arm to knuckle retaining bolt (2) and nut (1) at this stage.

7. Install the lower control arm to the knuckle retaining bolt (2) and NEW nut (1).

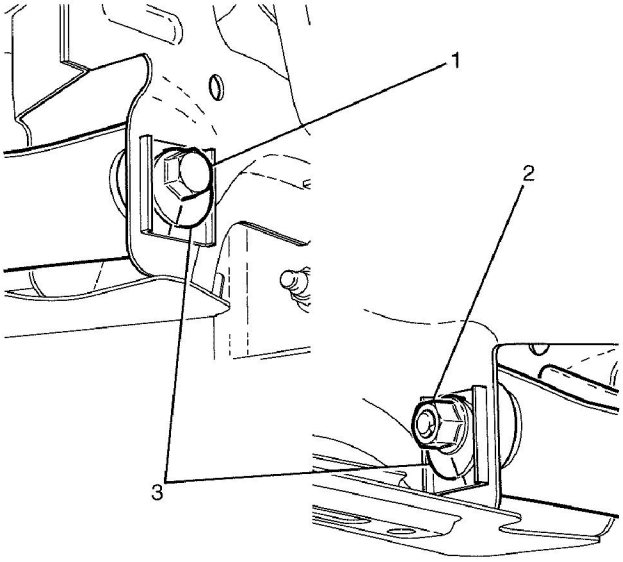
   Do not fully tighten at this stage.



8. Connect the stabilizer bar link (1) to the lower control arm (2).

   Caution: Refer to Fastener Caution in the Preface section.

9. Install the stabilizer bar link to lower control arm retaining NEW nut (3) and tighten to **50 N·m (37 lb ft)**.
10. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
11. Remove the safety stands.
12. Lower the vehicle to the ground.
13. Bounce the vehicle several times to settle the suspension.

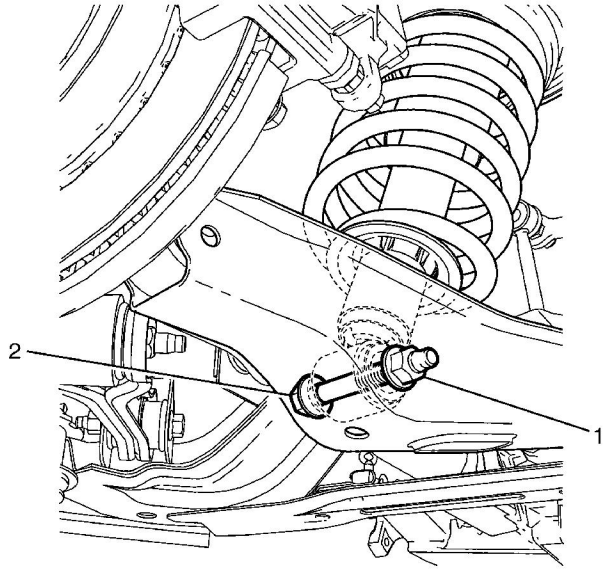


Note: The lower control arm to the subframe retaining bolt (1) and nut (2) eccentric washers (3) are used to adjust rear suspension camber.

14. Align the marks on the eccentric washers (3) with the marks on the subframe.

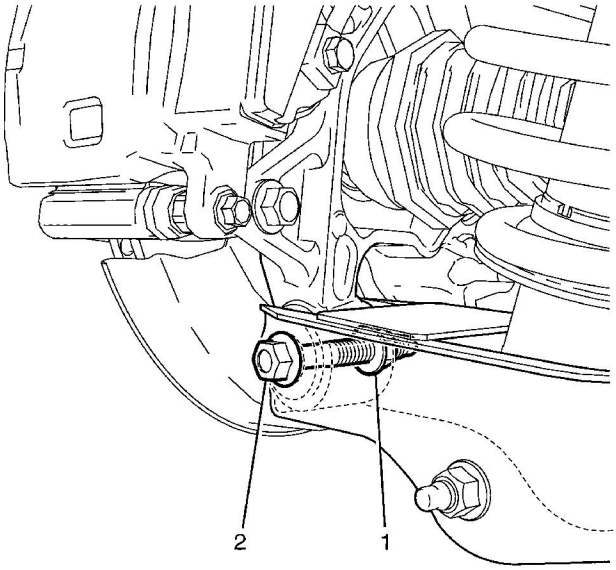
Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

15. Install the lower control arm to subframe retaining bolt (1) and nut (2) and tighten to **175 N·m (129 lb ft)**.



16. Install the lower control arm to strut assembly retaining bolt (2) and nut (1) and tighten to **40 N·m (30 lb ft)**.

    Tighten the bolt and nut a final pass 120 Degrees.



17. Install the lower control arm to knuckle retaining bolt (2) and nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

    Tighten the bolt and nut a final pass 120 Degrees.

18. Check the wheel alignment of the vehicle. Refer to Wheel Alignment Measurement.
19. Correct the wheel alignment of the vehicle, if necessary. Refer to Rear Camber Adjustment

and Rear Toe Adjustment.

Rear Axle Lower Control Arm Bushing Replacement

Special Tools

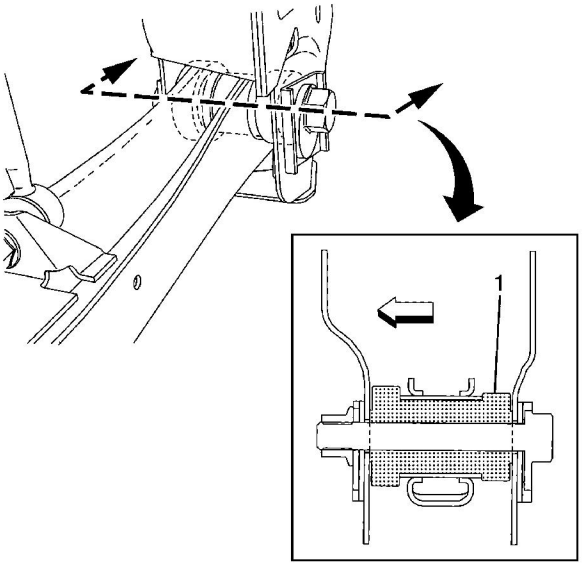
KM-619 Control Arm Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the lower control arm. Refer to Lower Control Arm Replacement.



Note: The lower control arm bushing (1) has a conical shape with a mid-section recess that fits inside the lower control arm bushing cavity. The wider end of the lower control arm bushing (1) faces towards the front of the vehicle.

3. Check the orientation of the lower control arm bushing.

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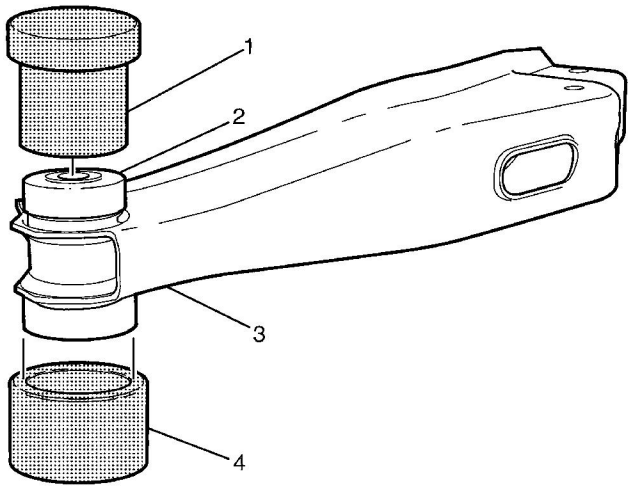
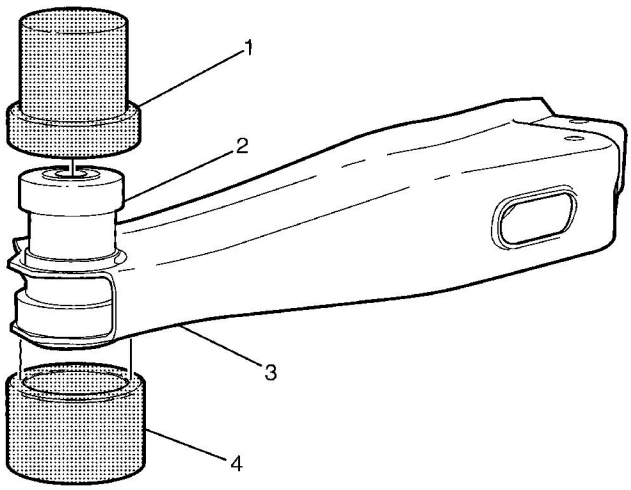


Note: The lower control arm bushing (2) must be lubricated with soapy water solution to ease the removal process.

4. Remove the lower control arm bushing (2) from the lower control arm (3) using the KM-619 (1, 4).

Installation Procedure



Note: The wider end of the lower control arm bushing (2) must be installed facing towards

the front of the vehicle.

Note: The lower control arm bushing (2) must be lubricated with soapy water solution to ease the installation process.

1. Install the lower control arm bushing (2) using the KM-619 (1, 4).
2. Install the lower control arm (3). Refer to Lower Control Arm Replacement.
3. Remove the safety stands.
4. Lower the vehicle to the ground.

Rear Axle Upper Control Arm Replacement

Special Tools

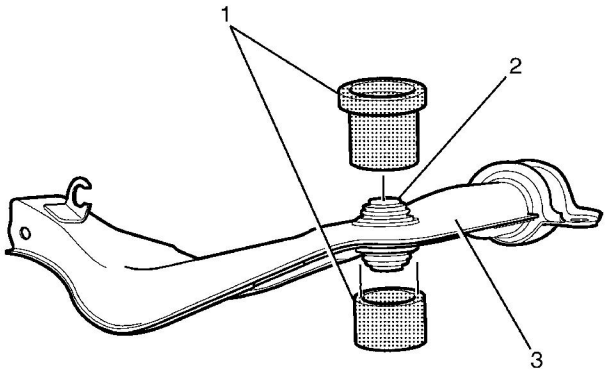
KM-619 Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the subframe. Refer to Rear Frame Replacement.
3. Remove the upper control arm pivot bushing. Refer to Control Arm Bushing Replacement
4. Remove the upper control arm. Refer to Upper Control Arm Replacement.



Note: It is recommended to observe the orientation and depth of the upper control arm ball joint bushing (2) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect upper control arm ball joint bushing (2) installation.

5. Remove the upper control arm ball joint bushing (2) from the upper control arm (3) using the KM-619 (1).
6. Inspect all parts for wear and damage.

Installation Procedure

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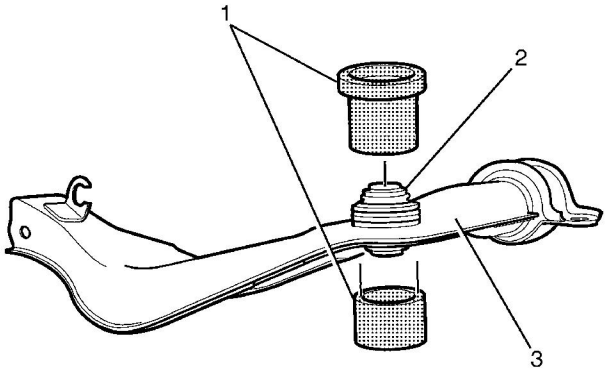


Note: Before installing, the upper control arm ball joint bushing (2) must be correctly aligned and orientated. The depth to which the bushing is going to travel must also be observed and maintained.

1. Install the upper control arm ball joint bushing (2) using the KM-619 (1).
2. Install the upper control arm (3). Refer to Upper Control Arm Replacement.
3. Install the upper control arm pivot bushing. Refer to Control Arm Bushing Replacement.
4. Install the subframe. Refer to Rear Frame Replacement.
5. Remove the safety stands.
6. Lower the vehicle to the ground.
7. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Measurement.

Rear Suspension Knuckle Upper Bushing Replacement

Special Tools

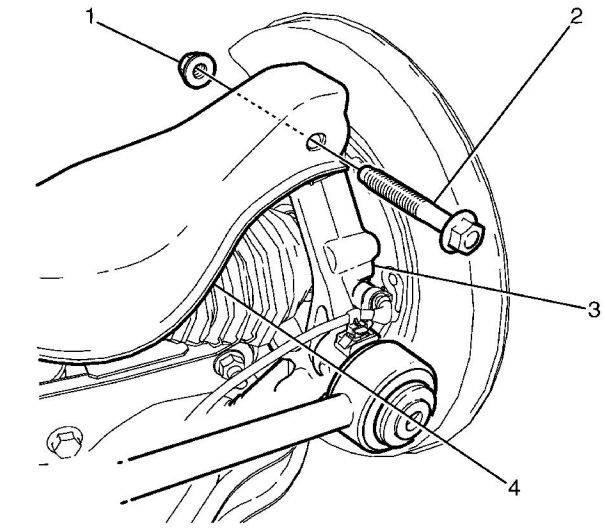
KM-619 Bushing Remover/Installer.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.



Note: Mark the location of the bolt and nut relative to the upper control arm for correct re-assembly.

Note: Nuts with micro-encapsulated thread sealant must be replaced after removal.

3. Remove the upper control arm to knuckle retaining bolt (2) and nut (1).

   Discard the nut.

4. Disconnect the upper control arm (4) from the knuckle (3).

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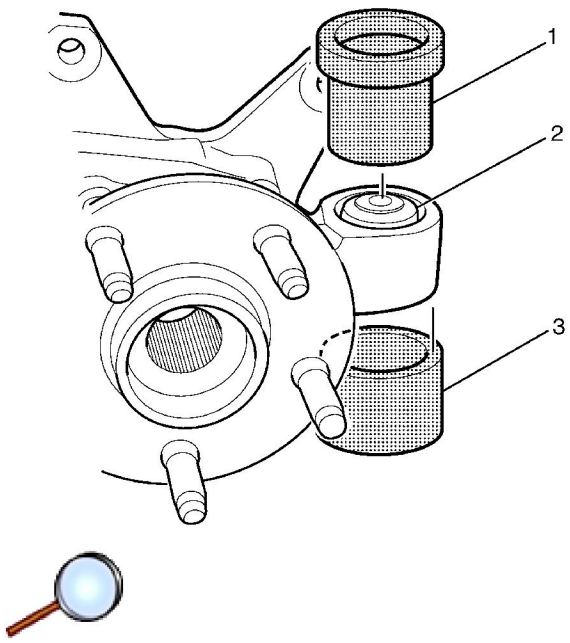
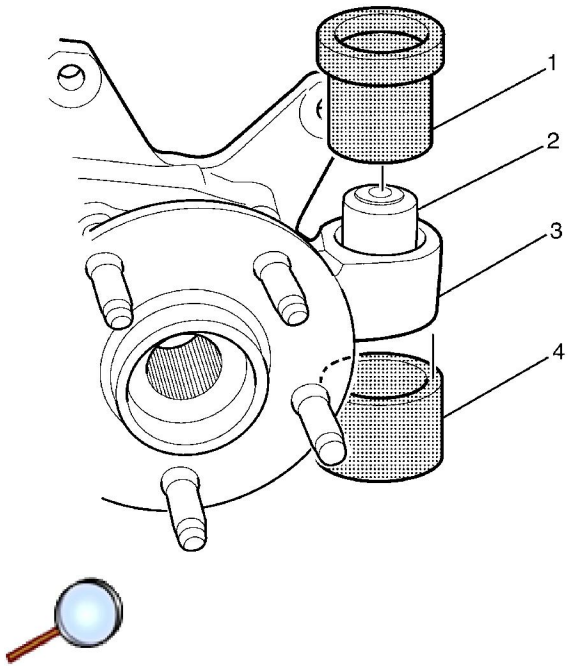


Note: It is recommended to observe the orientation and depth of the knuckle to upper control arm bushing (2) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect knuckle to upper control arm bushing (2) installation.

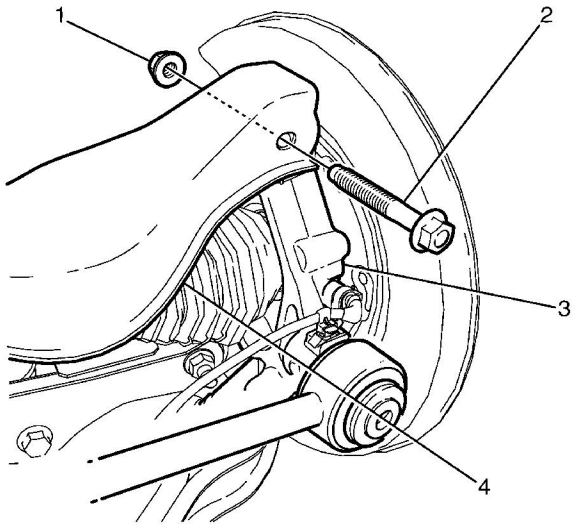
5. Remove the upper control arm to knuckle bushing (2) using the KM-619 (1, 3).
6. Inspect all parts for wear and damage.

Installation Procedure



Note: Before installing, the upper control arm to knuckle bushing (2) must be correctly aligned and orientated.

1. Install the upper control arm to knuckle bushing (2) to the knuckle (3) using the KM-619 (1, 4).



2. Connect the upper control arm (4) to the knuckle (3).

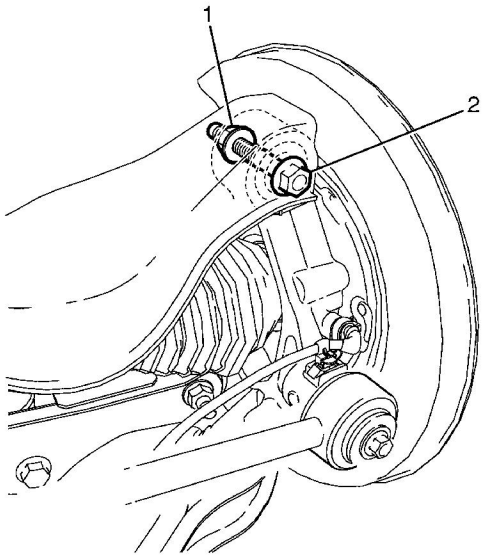
Note: The upper control arm to knuckle retaining bolt and nut must not to be fully tightened at this stage.

3. Install the upper control arm to knuckle retaining bolt (2) and NEW nut (1).

   Do not fully tighten at this stage.

4. Remove the safety stands.
5. Lower the vehicle to the ground.
6. Bounce the vehicle several times to settle the suspension.

Caution: Refer to Fastener Caution in the Preface section.



Note: Align the mark from bolt to upper control arm made prior to removal.

Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

7. Install the upper control arm to the knuckle retaining bolt (2) and NEW nut (1) and tighten to **60 N·m(44 lb ft)**.

   Tighten the bolt and nut to 90 Degrees.

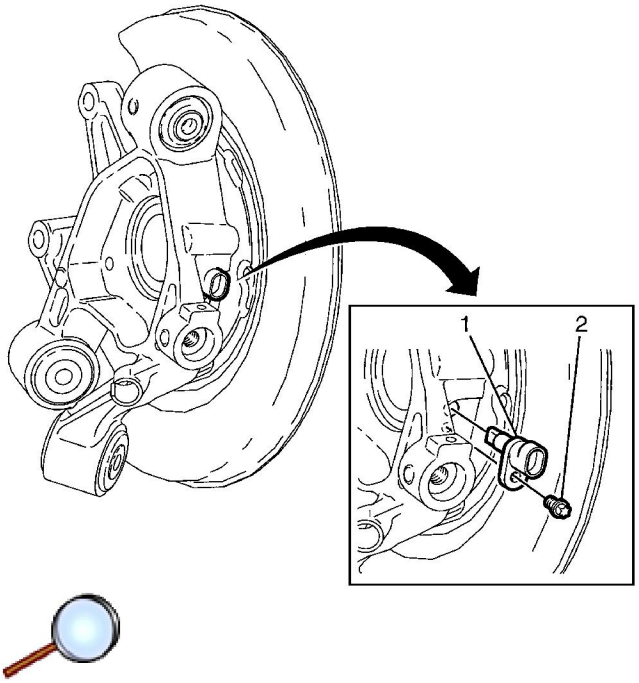
8. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

Rear Wheel Bearing and Hub Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

1. Remove the wheel hub and knuckle assembly. Refer to Knuckle Replacement.
2. Secure the wheel hub and knuckle assembly using a suitable vice.



3. Remove the wheel speed sensor to knuckle retaining bolt (2).
4. Remove the wheel speed sensor (1).

Note: The wheel bearing will be damaged when pressing out the wheel hub flange. The wheel bearing must be replaced every time the wheel hub is removed.

5. Remove the wheel hub flange using a suitable workshop press.
6. Remove the park brake shoes. Refer to Parking Brake Shoe Replacement.

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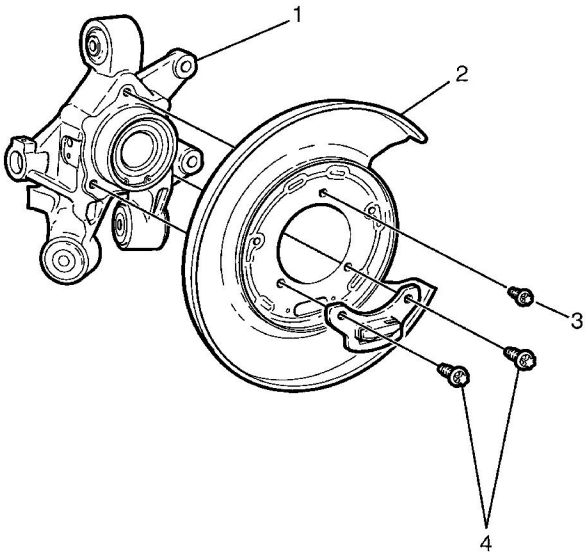
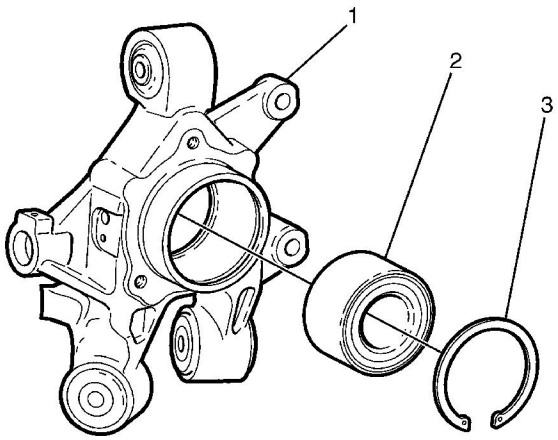


7. Remove the disc brake backing plate to knuckle retaining bolts (3 and 4).
8. Remove the disc brake backing plate (2) from the knuckle (1).



9. Remove the wheel bearing retaining circlip (3) using suitable circlip pliers.

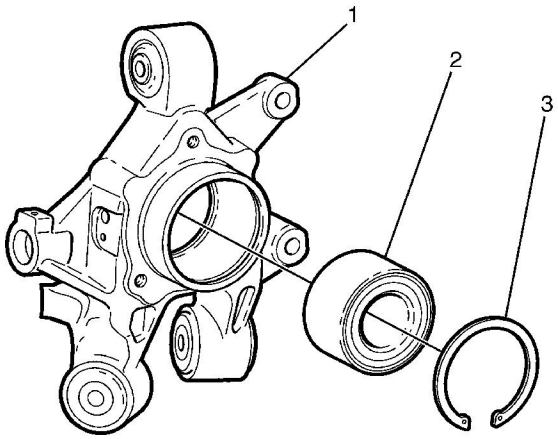
   Note: The wheel bearing will be damaged when pressing out the wheel hub flange. The wheel bearing must be replaced every time the wheel hub is removed.

10. Press the wheel bearing (2) from the knuckle (1) using a suitable workshop press.

    Discard the wheel bearing.

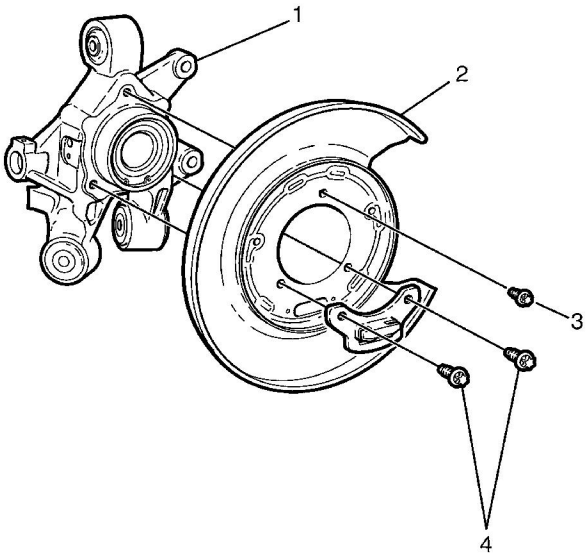
Installation Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.



Note: Prior to installing the NEW wheel bearing it is essential that the correct orientation is attained, the wheel speed sensor decoder ring MUST face inboard, towards the wheel speed sensor. Failure to install in the correct orientation will result in ABS/ESP faults.

1. Install the NEW wheel bearing (2) to the knuckle (1) using a workshop press.
2. Install the wheel bearing retaining circlip (3) using suitable circlip pliers.



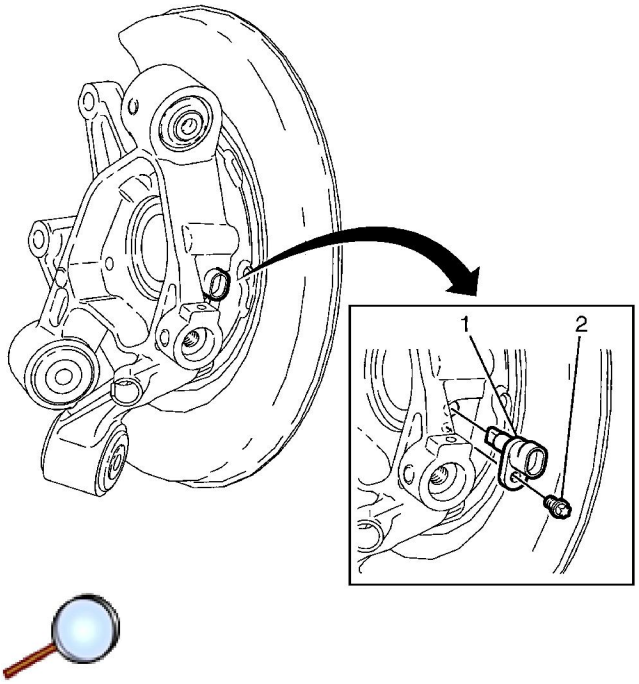
3. Install the disc brake backing plate (2) to the knuckle (1).

Caution: Refer to Fastener Caution in the Preface section.

4. Install the upper disc brake backing plate using the knuckle retaining bolt (3) and tighten to **60 N·m (44 lb ft)**.
5. Install the lower disc brake backing plate using the knuckle retaining bolts (4) and tighten to **130 N·m (96 lb ft)**.
6. Install the park brake shoes. Refer to Parking Brake Shoe Replacement.

Note: The wheel hub flange (1) must be fully seated against the wheel bearing.

7. Install the wheel hub flange (1) using a suitable press.



8. Install the wheel speed sensor (1).

Caution: Refer to Fastener Caution in the Preface section.

9. Install the wheel speed sensor using the knuckle retaining bolt (2) and tighten to **7 N·m (62 lb in)**.
10. Remove the hub and knuckle assembly from the vice.
11. Install the wheel hub and knuckle assembly. Refer to Knuckle Replacement.

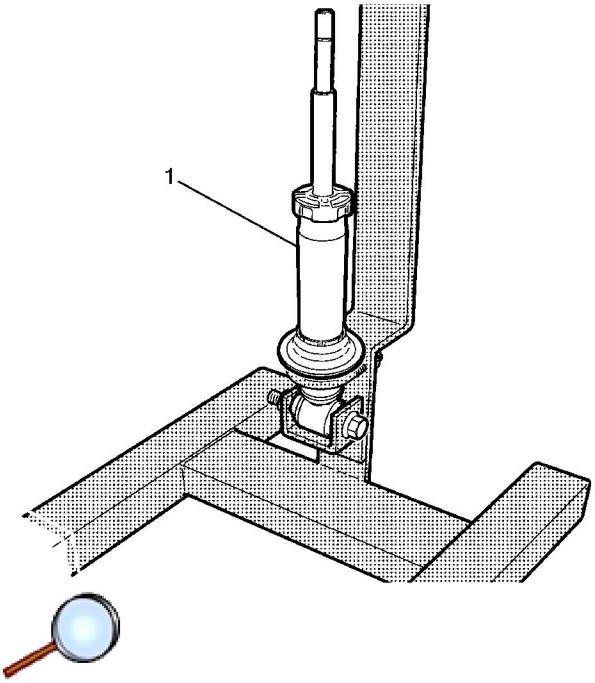
Shock Absorber Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheels. Refer to Tire and Wheel Removal and Installation.
3. Remove the rear strut assembly. Refer to Strut Assembly Replacement.
4. Remove the rear strut assembly support mount. Refer to Rear Suspension Strut Mount Replacement.
5. Remove the rear coil spring. Refer to Coil Spring Replacement.



6. Remove the shock absorber (1) from the mounting trestle, or vice.
7. Inspect all parts for wear and damage.

Installation Procedure

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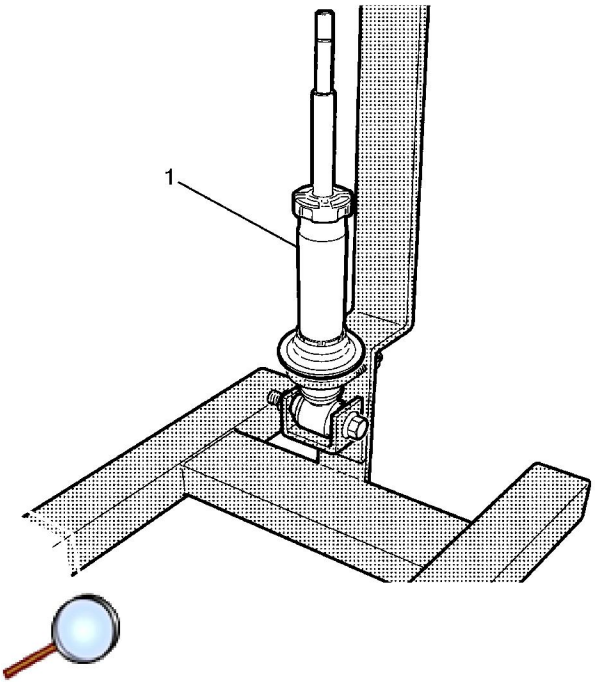


1. Mount the shock absorber (1) on a mounting trestle, or a vice.
2. Install the rear coil spring. Refer to Coil Spring Replacement.
3. Install the rear strut assembly support mount. Refer to Rear Suspension Strut Mount Replacement.
4. Install the rear strut assembly. Refer to Strut Assembly Replacement.
5. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
6. Remove the safety stands.
7. Lower the vehicle to the ground.

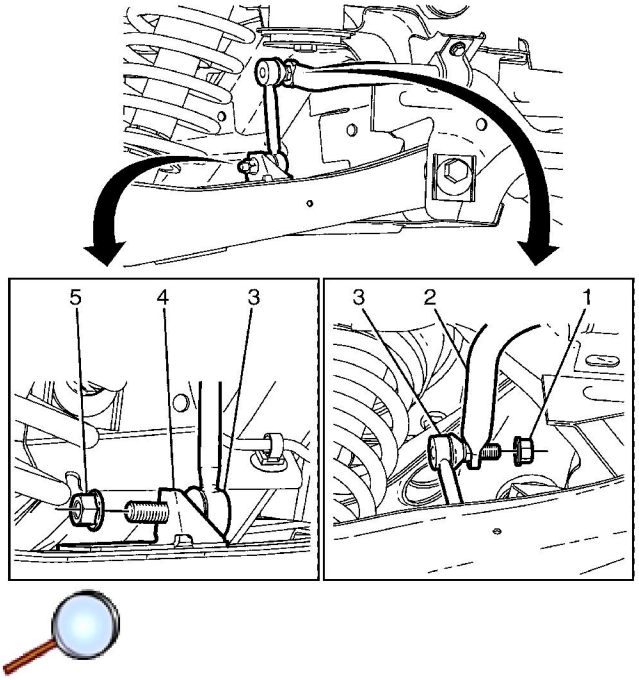
Stabilizer Shaft Link Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.



Note: Nuts with micro-encapsulated thread sealant must be discarded after removal.

2. Remove the stabilizer bar link to stabilizer bar retaining nut (1).

   Discard the nut.

3. Disconnect the stabilizer bar link (3) from the stabilizer bar (2).
4. Remove and the stabilizer bar link to lower control arm retaining nut (5).

   Discard the nut.

5. Remove the stabilizer bar link (3) from the lower control arm (4).
6. Remove the stabilizer bar link (3).
7. Inspect all parts for wear and damage.

Installation Procedure

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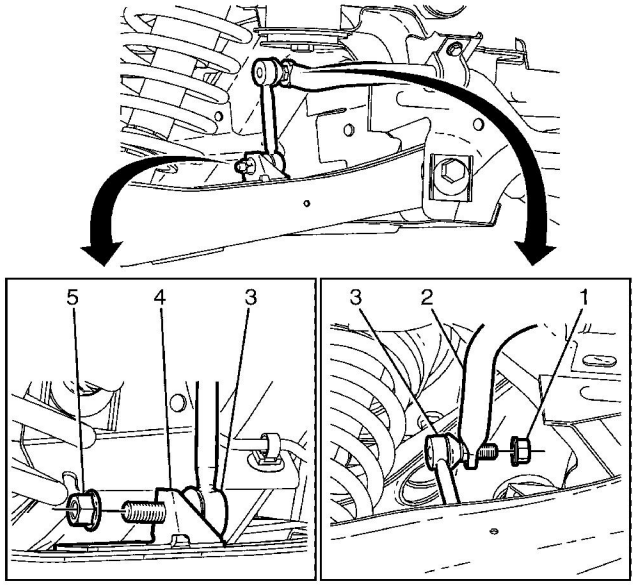


1. Connect the stabilizer bar link (3) to the stabilizer bar (2).

   Caution: Refer to Fastener Caution in the Preface section.

2. Install the stabilizer bar link to stabilizer bar NEW retaining nut (1) and tighten to **50 N·m (37 lb ft)**.
3. Install the stabilizer bar link (3) to the lower control arm (4).
4. Install the stabilizer bar link to lower control arm retaining NEW nut (5) and tighten to **50 N·m (37 lb ft)**.
5. Remove the safety stands.
6. Lower the vehicle to the ground.

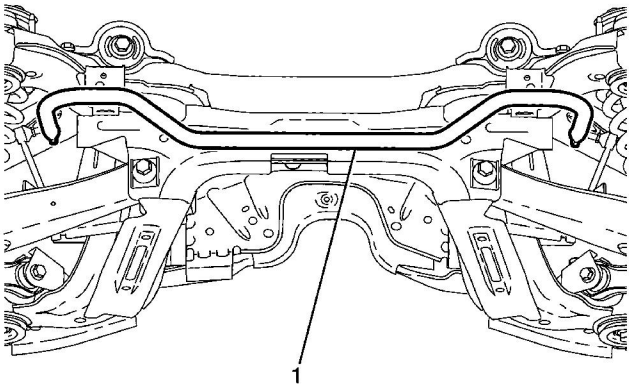
Stabilizer Shaft Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Disconnect the stabilizer bar links from the stabilizer bar. Refer to Stabilizer Shaft Link Replacement.
3. Remove the stabilizer bar insulators. Refer to Stabilizer Shaft Insulator Replacement.
4. Support and secure adjustable jack stands to the stabilizer bar.



5. Remove the stabilizer bar (1) from the vehicle.
6. Inspect all parts for wear and damage.

Installation Procedure

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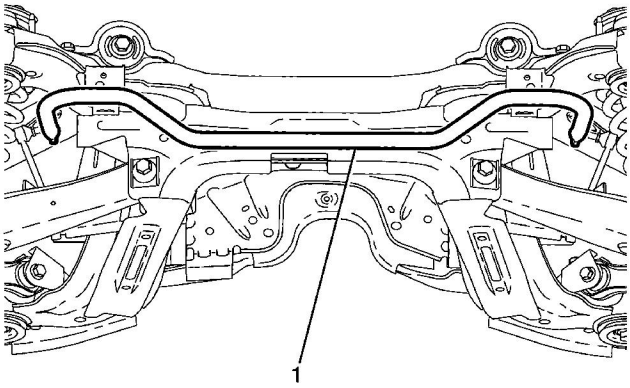


1. Install the stabilizer bar (1) to the vehicle.
2. Install the stabilizer bar insulators and brackets. Refer to Stabilizer Shaft Insulator Replacement.
3. Install the stabilizer bar links to the stabilizer bar. Refer to Stabilizer Shaft Link Replacement.
4. Remove the safety stands.
5. Lower the vehicle to the ground.

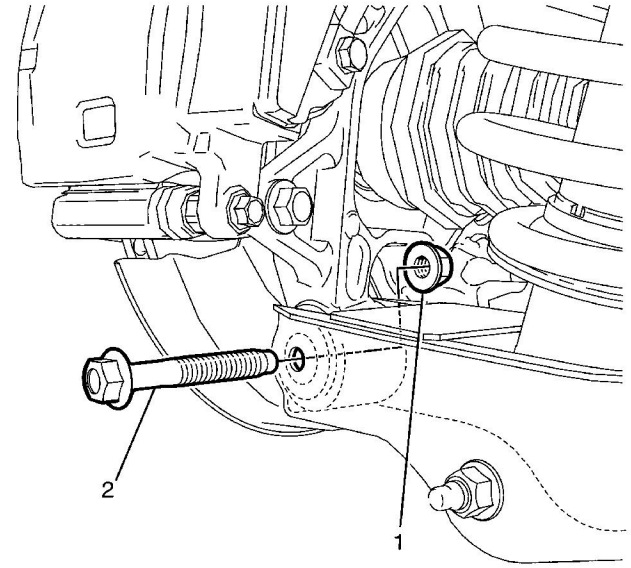
Strut Assembly Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.
3. Support the lower control arm with a suitable jack.



Note: Prevailing torque nuts must be discarded after removal.

4. Remove the lower control arm to knuckle retaining bolt (2) and nut (1).

   Discard the nut.

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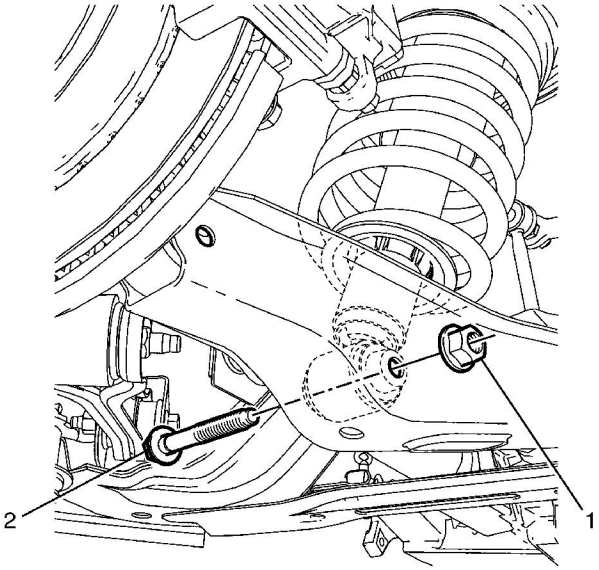


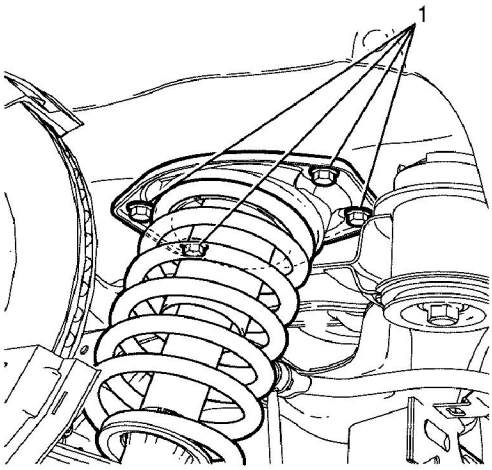
Note: Prevailing torque nuts must be discarded after removal.

5. Remove the lower control arm to rear strut assembly retaining bolt (2) and nut (1).

   Discard the nut.

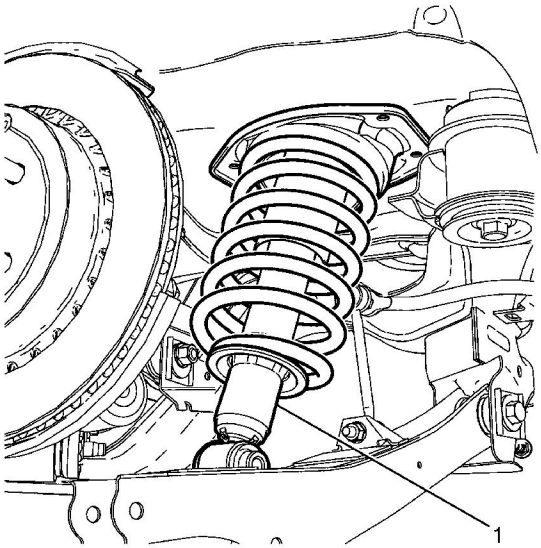
   Note: Reposition the jack as necessary.

6. Detach the lower control arm (1) using a suitable pry bar.



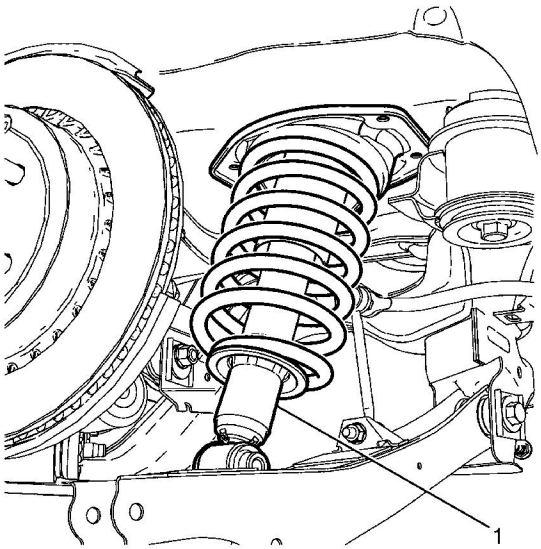
Note: Make sure to support the rear strut assembly during the removal procedure.

7. Remove the rear strut assembly to body retaining bolts (1).



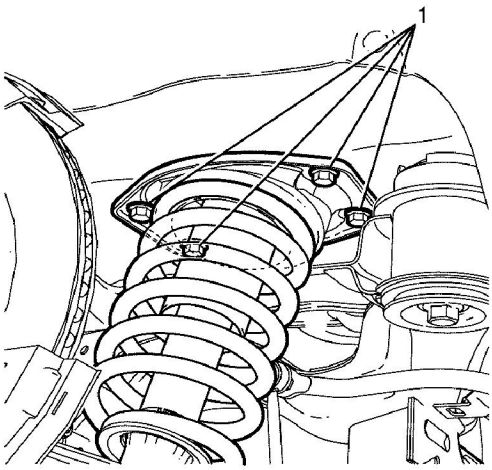
8. Remove the rear strut assembly (1) from the vehicle.
9. Inspect all parts for wear and damage.

Installation Procedure

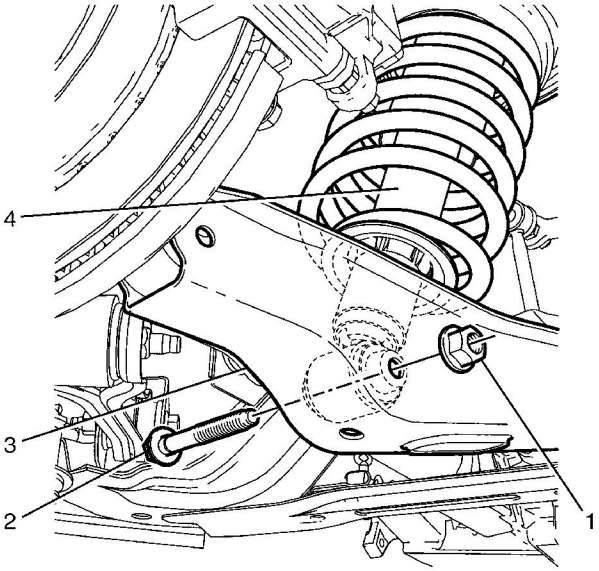


1. Install the rear strut assembly (1) into the vehicle.
2. Safely support the rear strut assembly.

Caution: Refer to Fastener Caution in the Preface section.



3. Install the rear strut assembly to body retaining bolts (1) and tighten to **58 N·m (43 lb ft)**.

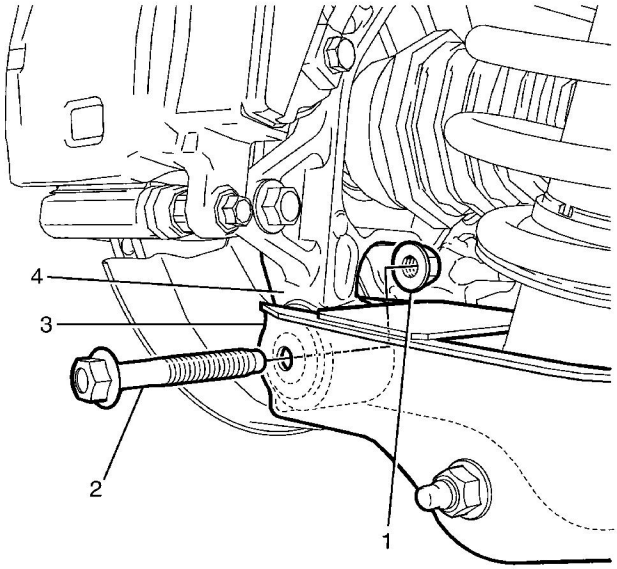


4. Connect the rear strut assembly (4) to the lower control arm (3).

   Note: Do not fully tighten the lower control arm to strut assembly retaining bolt (2) and nut (1) at this stage.

5. Install the lower control arm to strut assembly retaining bolt (2) and NEW nut (1).

   Do not fully tighten at this stage.



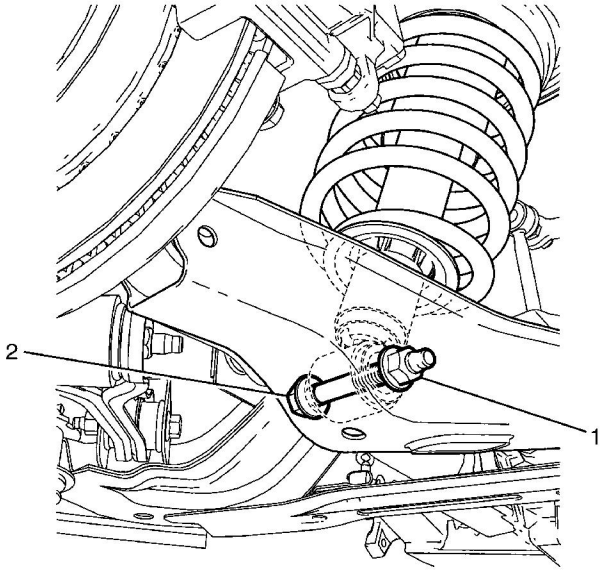
6. Connect the lower control arm (3) to the knuckle (4) using a suitable jack.

   Note: Do not fully tighten the lower control arm to knuckle retaining bolt (2) and nut (1) at this stage.

7. Install the lower control arm to the knuckle retaining bolt (2) and NEW nut (1).

   Do not fully tighten at this stage.

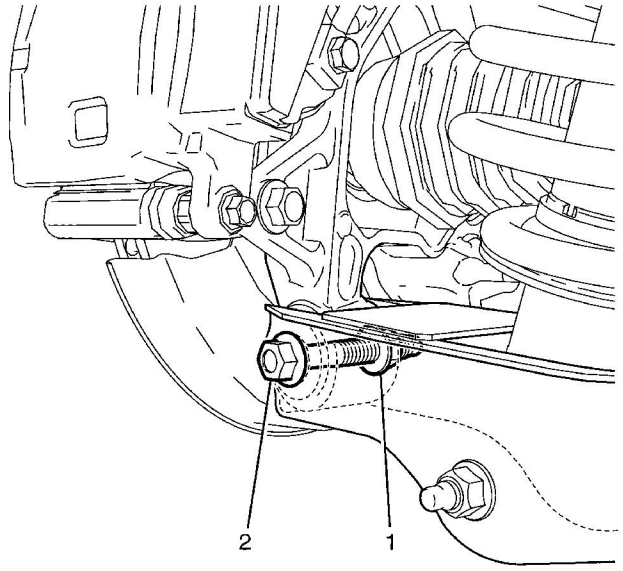
8. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
9. Remove the safety stands.
10. Lower the vehicle to the ground.
11. Bounce the vehicle several times to settle the suspension.



Note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

12. Install the lower control arm to strut assembly retaining bolt (2) and NEW nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

    Tighten the bolt and nut a final pass 120 Degrees.



13. Tighten the lower control arm to knuckle retaining bolt (2) and NEW nut (1) and tighten a first pass to **40 N·m (30 lb ft)**.

    Tighten the bolt and nut a final pass 120 Degrees.

14. Check the wheel alignment of the vehicle. Refer to Wheel Alignment Measurement.
15. Correct the wheel alignment of the vehicle, if necessary. Refer to Rear Camber Adjustment and Rear Toe Adjustment.

Tire Pressure Indicator Sensor Learn

Special Tools

J-46079 Tire Pressure Monitor Diagnostic Tool

Learn Mode Description

The tire pressure monitor (TPM) system uses the instrument panel cluster (IPC), body control module (BCM), remote control door lock receiver (RCDLR), keyless entry transmitter, 4 radio frequency transmitting pressure sensors, and the serial data circuit to perform the TPM learn mode functions. The sensor learn procedure must be performed after every tire rotation, RCDLR replacement, or sensor replacement. Once the learn mode has been enabled, each of the sensors unique identification codes can be learned into the RCDLR memory. When a sensor ID has been learned, the RCDLR sends a serial data message to the BCM to sound a horn chirp. This verifies the sensor has transmitted its ID and the RCDLR has received and learned it. The RCDLR must learn the sensor IDs in the proper sequence to determine correct sensor location. The first learned ID is assigned to the left front location, the second to right front, the third to right rear and the fourth to left rear. The turn signals will individually illuminate indicating which location is to be learned in the proper sequence.

Sensor Functions Using J-46079

Each sensor has an internal low frequency coil. When the J-46079 is used in activate mode, it produces a low frequency transmission that activates the sensor. The sensor responds to a low frequency activation by transmitting in learn mode. When the RCDLR receives a learn mode transmission while in TPM learn mode, it will assign that sensors ID to the location on the vehicle relative to the order in which it was learned.

Sensor Functions Using Pressure Increase/Decrease Method

Each sensor takes a pressure measurement sample once every 30 seconds while in stationary mode. If the tire pressure increases, or decreases by more than 8.3 kPa (1.2 psi) from the last pressure measurement, another measurement will occur immediately to verify the change in pressure. If a pressure change has indeed occurred, the sensor transmits in Learn mode. When the RCDLR receives a Learn mode transmission while in TPM learn mode, it will assign that sensor's ID to the location on the vehicle relative to the order in which it was learned.

Learn Mode Cancellation

The learn mode will cancel if the ignition is cycled to OFF or if more than 2 minutes has elapsed for any sensor that has not been learned. If the learn mode is cancelled before the first sensor is learned, the original sensor IDs will be maintained. If the learn mode is canceled after the first sensor is learned, the following will occur:

- All stored sensor IDs will be invalidated in the RCDLR memory.
- If equipped, the DIC will display dashes instead of tire pressures.
- DTC C0775 will be set.

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These conditions will now require the learn procedure to be repeated for the system to function properly.

TPM Learn Procedure

Note: If using the scan tool to enable the learn mode, the J-46079 must be used to activate the sensors. When this preferred method is used, any stray sensor signals will not affect the learn procedure. In the event a particular sensor's information is displayed on the special tool upon activation but the horn does not chirp, it may be necessary to rotate the wheel valve stem to a different position due to the sensor signal is being blocked by another component.

If using the keyless entry transmitter or DIC buttons to enable the learn mode, the J-46079 or Pressure Increase/Decrease Method may be used. Before proceeding with this method, ensure that no other learn procedure is being performed simultaneously or that tire pressures are not being adjusted on another TPM equipped vehicle within close proximity. Stray signals from other TPM equipped vehicles just driving by can be inadvertently learned. If any random horn chirps are heard from the vehicle while performing the learn procedure, most likely a stray sensor has been learned and the procedure will need to be cancelled and repeated. Under these circumstances, performing the TPM Learn Procedure away from other vehicles would be highly recommended. In the event a particular sensor activation does not cause the horn to chirp, it may be necessary to rotate the wheel valve stem to a different position due to the sensor signal is being blocked by another component.

Preferred Scan Tool Learn Enable Method

1. Using a scan tool, initiate the TPM Learn Mode. A double horn chirp will sound indicating the Learn Mode has been enabled. The left front turn signal will also be illuminated.
2. Starting with the left front tire, active the sensor by holding the antenna of the J-46079 aimed upward against the tire sidewall close to the wheel rim at the valve stem location. Press and release the Activate button and wait for a horn chirp. Once the horn chirp has sounded, the sensor information is learned and the turn signal in the next location to be learned will illuminate.
3. After the horn chirp has sounded and the right front turn signal is illuminated, repeat step 2 for the remaining 3 sensors in the following order:
   3.1. Right front
   3.2. Right rear
   3.3. Left rear
4. When the left rear sensor has been learned and a double horn chirp has sounded, the learn process is complete and the RCDLR exits the learn mode.
5. Ignition OFF, adjust all tires to the recommended pressures. Refer to Vehicle Certification, Tire Placard, Anti-Theft, and Service Parts ID Label.

Alternate Keyless Entry Transmitter or DIC Learn Enable Method

1. Ignition ON, initiate the TPM Learn Mode using one of the following procedures:
   - On vehicles equipped with keyless entry, simultaneously press the keyless entry transmitters lock and unlock buttons until a double horn chirp sounds indicating the Learn Mode has been enabled. The left front turn signal will also be illuminated.
   - On vehicles not equipped with keyless entry, press and release the driver information center (DIC) INFO button until the TIRE LEARN message appears on the DIC display. Press and hold the SET/RESET button until a double horn chirp sounds indicating the Learn Mode has been enabled. The left front turn signal will also be illuminated.

2. Starting with the left front tire, learn the tire pressure using one of the following methods:
   - Hold the antenna of the J-46079 aimed upward against the tire sidewall close to the wheel rim at the valve stem location. Press and release the activate button and wait for a horn chirp. Once the horn chirp has sounded, the sensor information is learned and the turn signal in the next location to be learned will illuminate.

     Warning: Over inflating tires may cause personal injury or damage to the tires and wheels. When increasing tire pressure do not exceed the maximum inflation pressure as noted on the tire sidewall.

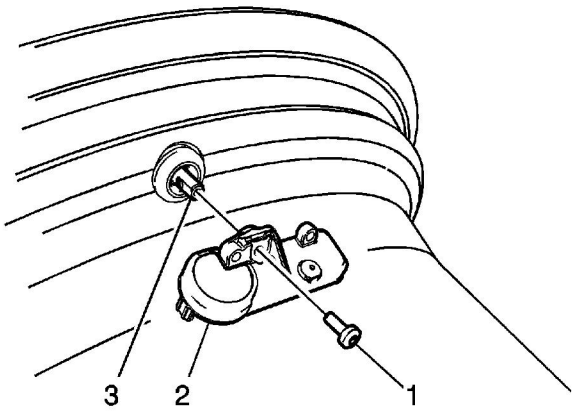
   - Increase/decrease the tire pressure for 8-10 seconds then wait for a horn chirp. The horn chirp may occur before or up to 30 seconds after the 8-10 second pressure increase/decrease time period has been reached. Once the horn chirp has sounded, the sensor information is learned and the turn signal in the next location to be learned will illuminate.
3. After the horn chirp has sounded and the right front turn signal is illuminated, repeat step 2 for the remaining 3 sensors in the following order:
   3.1. Right front
   3.2. Right rear
   3.3. Left rear
4. When the left rear sensor has been learned and a double horn chirp has sounded, the learn process is complete and the RCDLR exits the learn mode.
5. Ignition OFF, adjust all tires to the recommended pressures. Refer to Vehicle Certification, Tire Placard, Anti-Theft, and Service Parts ID Label.

Tire Pressure Indicator Sensor Replacement

Removal Procedure

1. Raise the vehicle on a suitable support. Refer to Lifting and Jacking the Vehicle.
2. Remove the tire/wheel assembly from the vehicle. Refer to Tire and Wheel Removal and Installation.
3. Dismount the tire from the rim. Refer to Tire Dismounting and Mounting.

Note: When servicing the tire pressure sensor always use a new Schrader® tire pressure monitoring (TPM) sensor and a new TORX screw during installation.



4. Remove the TORX screw (1) from the tire pressure sensor (2) and pull it straight off the tire pressure valve stem (3).

Caution: Do not scratch or damage the clear coating on aluminum wheels with the tire changing equipment. Scratching the clear coating could cause the aluminum wheel to corrode and the clear coating to peel from the wheel.

5. Remove the tire pressure valve stem by pulling it through the rim.

Installation Procedure

Caution: Refer to Fastener Caution in the Preface section.

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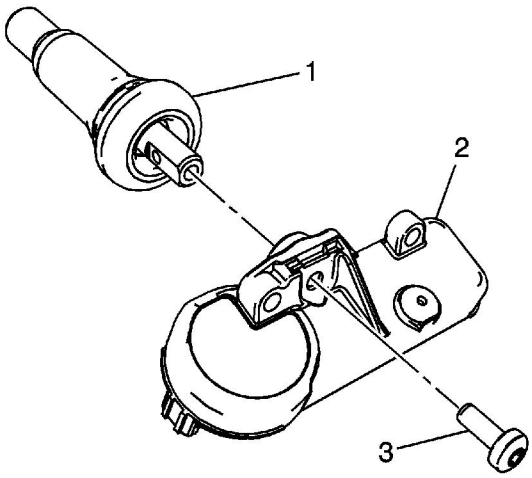


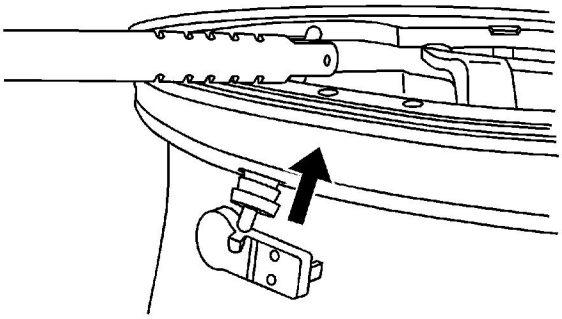
Note:

- Ensure the flat of the valve, lines up with the flats of the snap in the enclosure.
- TPM valves and TORX screws are single use items.

1. Assemble the tire pressure sensor (2) to the valve stem and install the new TORX screw (3), tighten to **1.3 N·m (11.5 lb in)**.

   Note: Use an approved tire mounting lubricant. DO NOT use silicon or corrosive base compounds to lubricate the tire bead and the wheel rim. A corrosive type compound can cause tire or rim deterioration.

2. Apply tire soap to the rubber portion of the valve stem (1).



3. Using a tire valve stem mounting tool, pull the valve stem through in a direction parallel to the valve hole on the rim.

   Note: Snap Fit TPM sensors are shipped in the OFF mode. The sensor will exit its OFF state when the tire is inflated.

4. Mount the tire to the rim. Refer to Tire Dismounting and Mounting.
5. Install the tire/wheel assembly on the vehicle. Refer to Tire and Wheel Removal and Installation.
6. Lower the vehicle.
7. Learn the tire pressure sensors. Refer to Tire Pressure Sensor Learn.

Trailing Arm Bushing Replacement

Special Tools

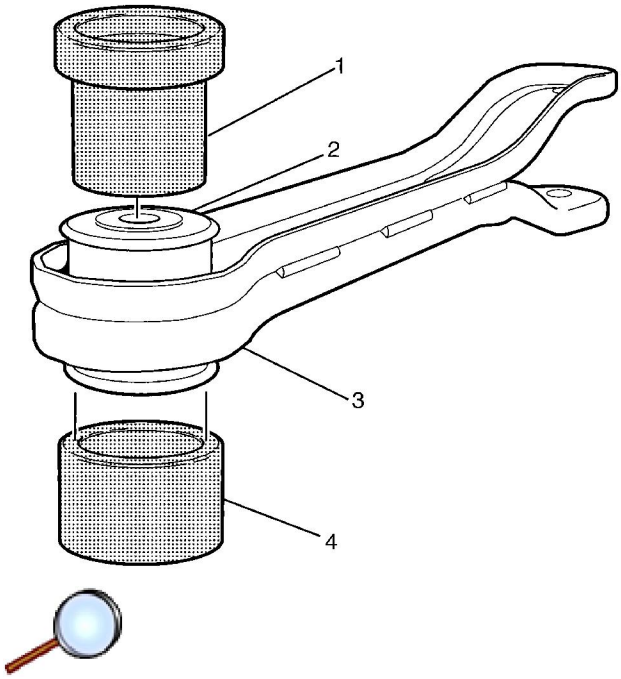
KM-906-B

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the Y-Link. Refer to Trailing Arm Replacement.



Note: It is recommended to observe the orientation and depth of the Y-Link bushing (2) with reference to the original position. Adhering to this recommendation will minimize the potential of incorrect Y-Link bushing (2) installation.

3. Remove the Y-Link bushing (2) from the Y-Link (3) using the KM-906-B (1, 4).
4. Inspect all parts for wear and damage.

Installation Procedure

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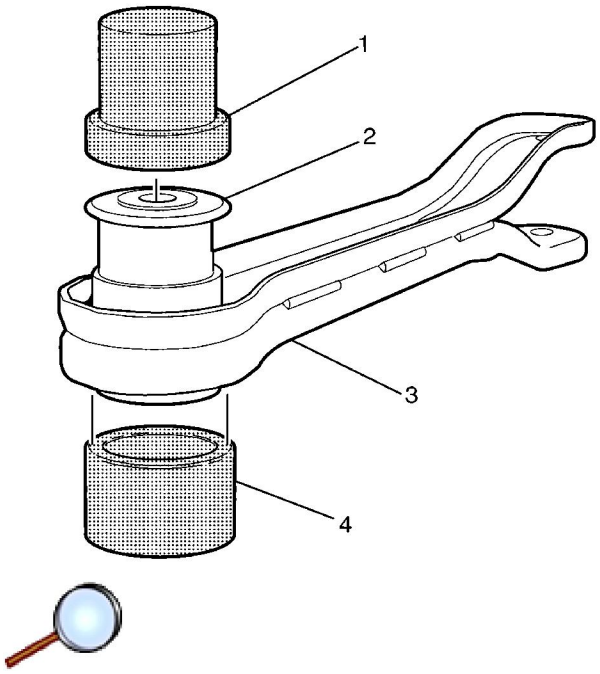


Note: Before installing, the Y-Link bushing (2) must be correctly aligned and orientated.

1. Install the Y-Link (2) bushing to the Y-Link (3) using the KM-906-B 9 (1, 4).
2. Install the Y-Link (3). Refer to Trailing Arm Replacement.
3. Remove the safety stands.
4. Lower the vehicle to the ground.

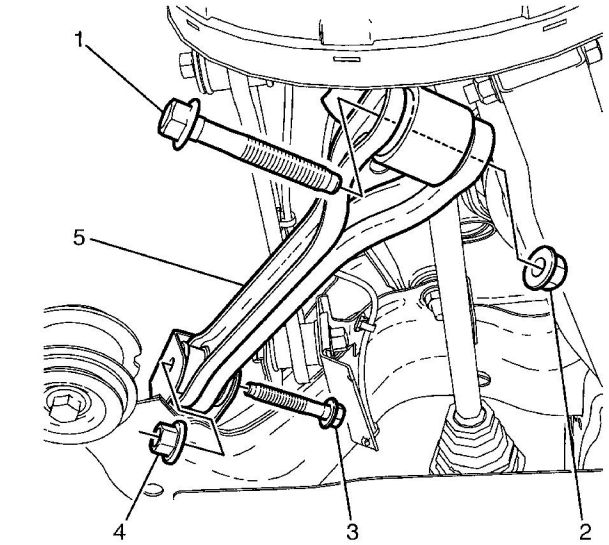
Trailing Arm Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheel. Refer to Tire and Wheel Removal and Installation.



Note: Mark the location of the bolt and nut relative to the Y-Link for correct re-assembly.

Note: Prevailing torque nuts must be discarded after removal.

3. Remove the Y-Link to knuckle retaining bolt (1) and nut (2).

   Discard the nut.

4. Remove the Y-Link to subframe retaining bolt (3) and nut (4).

   Discard the nut.

5. Remove the Y-Link (5).
6. Inspect all parts for wear and damage.

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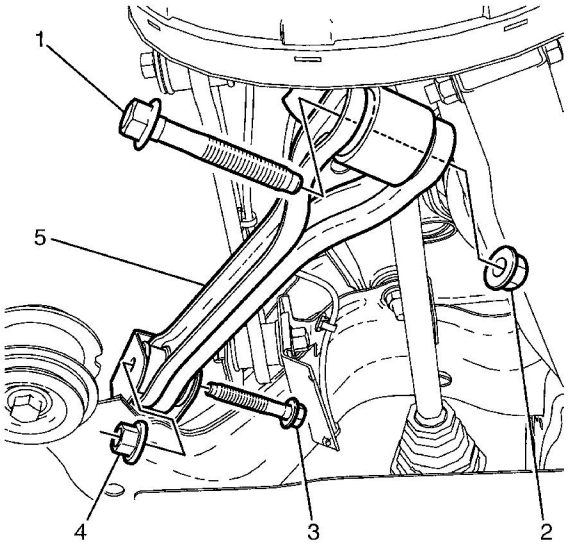
Installation Procedure



1. Install the Y-Link (5) into the subframe.

   Note: The Y-Link to subframe retaining bolt (3) and nut (4) must not to be fully tightened at this stage.

2. Install the Y-Link to subframe retaining bolt (3) and NEW nut (4).

   Do not fully tighten at this stage.

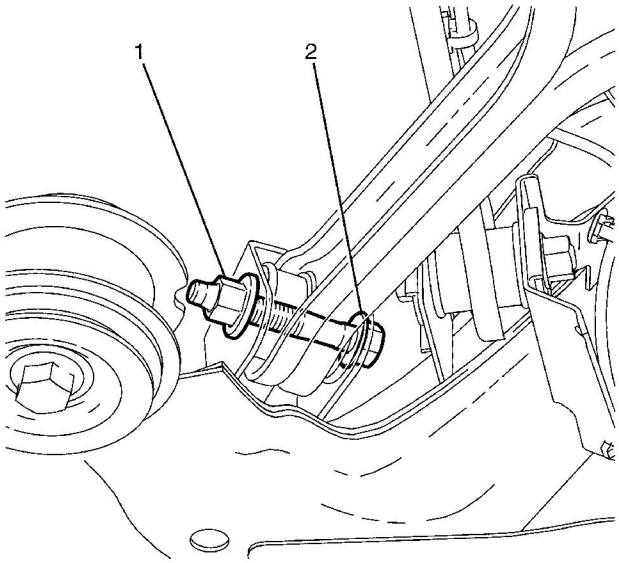
   Note: The Y-Link to knuckle retaining bolt (1) and nut (2) must not to be fully tightened at this stage.

3. Install the Y-Link to knuckle retaining bolt (1) and NEW nut (2).

   Do not fully tighten at this stage.

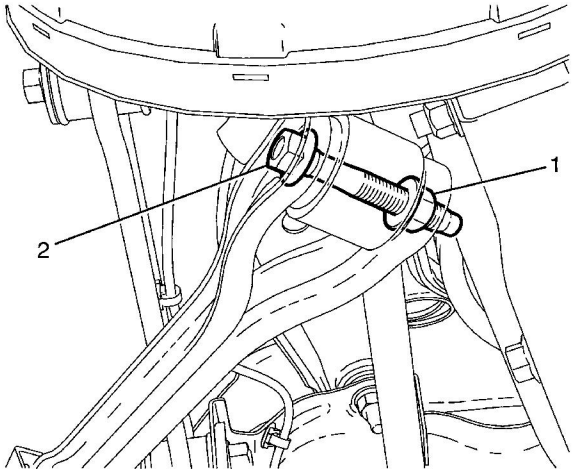
4. Lower the vehicle to the ground.
5. Bounce the vehicle several times to settle the suspension.
6. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

   Caution: Refer to Fastener Caution in the Preface section.



note: The weight of the vehicle must be on a level surface and on all four wheels before fully tightening the nuts and bolts.

7. Install the Y-Link to the subframe retaining bolt (2) and NEW nut (1) and tighten to **100 N·m (74 lb ft)**.



8. Install the Y-Link to the knuckle retaining bolt (2) and NEW nut (1 and tighten a first pass to **40 N·m (30 lb ft)**.

   Tighten the bolt and nut a final pass 120 Degrees.

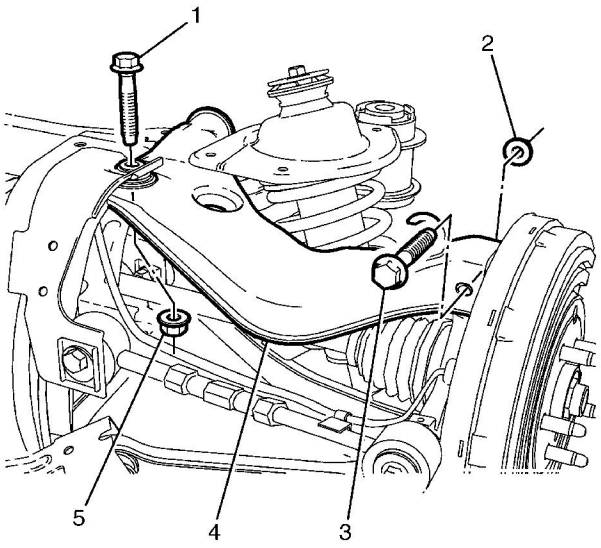
Upper Control Arm Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the subframe. Refer to Rear Frame Replacement.
3. Remove the upper control arm pivot bushing. Refer to Control Arm Bushing Replacement.



Note: Mark the location of the bolt and nut relative to the Y-Link for correct re-assembly.

Note: Prevailing torque nuts must be replaced after removal.

4. Remove the upper control arm ball joint bushing to subframe retaining bolt (1) and nut (5).

   Discard the nut.

5. Remove the upper control arm to knuckle retaining bolt (3) and nut (2).

   Discard the nut.

6. Remove the upper control arm (4).
7. Inspect all parts for wear and damage.

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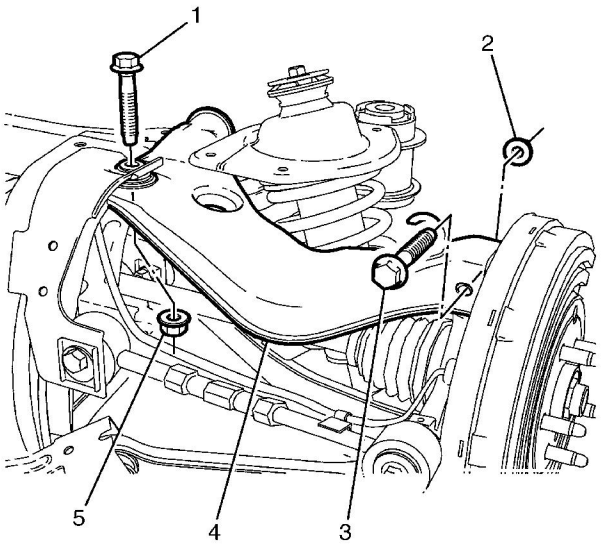
Installation Procedure

Caution: Refer to Fastener Caution in the Preface section.



1. Install the upper control arm (4) into the subframe.
2. Install the upper control arm ball joint bushing to subframe retaining bolt (1) and NEW nut (5) and tighten.
   - the bolt and nut a first pass to **80 N·m (59 lb ft)**
   - the bolt and nut a final pass 120 Degrees.
3. Install the upper control arm to knuckle retaining bolt (3) and NEW nut (2) and tighten.
   - the bolt and nut a first pass to **60 N·m (44 lb ft)**
   - the bolt and nut a final pass 90 degrees
4. Install the upper control arm pivot bushing. Refer Control Arm Bushing Replacement.
5. Install the subframe. Refer to Rear Frame Replacement.
6. Remove the safety stands.
7. Lower the vehicle to the ground.
8. Check the vehicle rear wheel alignment and adjust if necessary. Refer to Wheel Alignment Specifications.

Wheel Stud Replacement

Special Tools

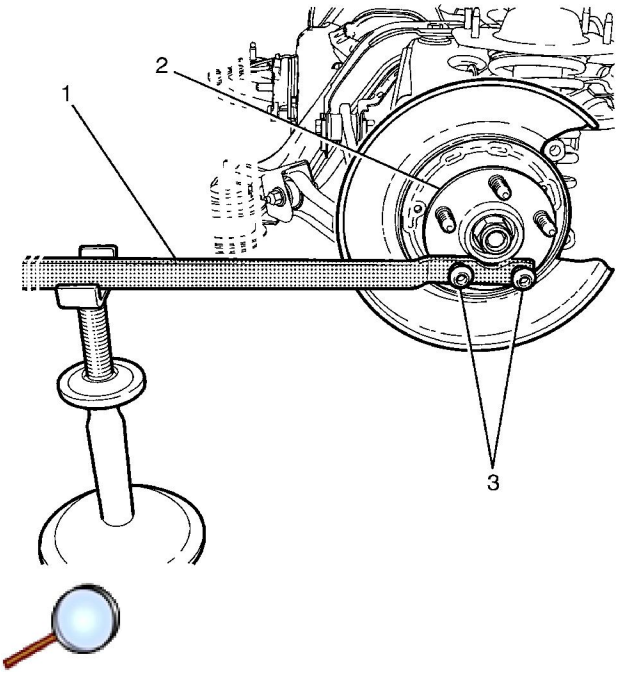
- C-4150-C Press Tool.
- 7208 Drive Shaft Remover.
- KM-468 Hub Holding Tool.

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear wheels. Refer to Tire and Wheel Removal and Installation.
3. Remove the rear brake disc. Refer to Rear Brake Rotor Replacement.



4. Install the KM-468 (1) to the wheel hub (2) with two inverted wheel nuts (3).
5. Support the KM-468 (1) outer end on a safety stand.

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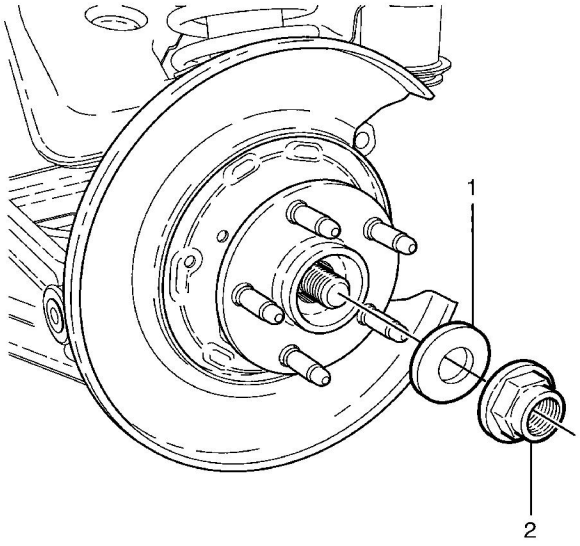
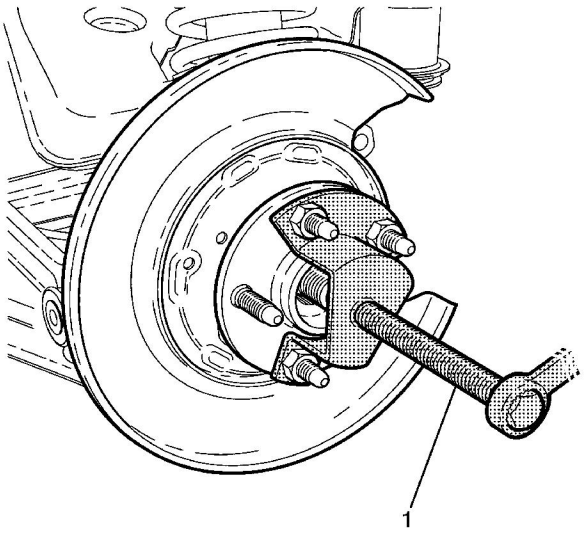
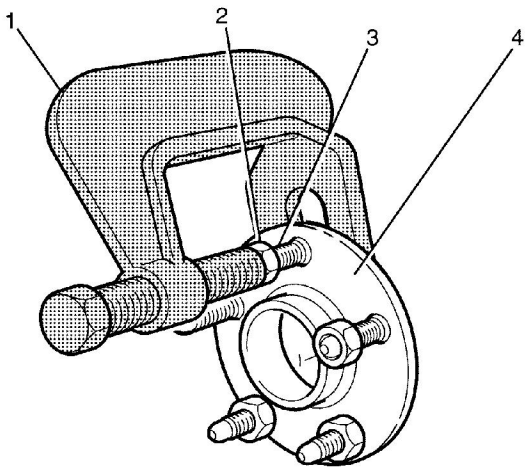


Note: The rear driveshaft retaining nut (2) and washer (1) must be discarded after removal.

6. Remove the rear driveshaft retaining nut (2) and washer (1).
   - Discard the nut.
   - Discard the washer.

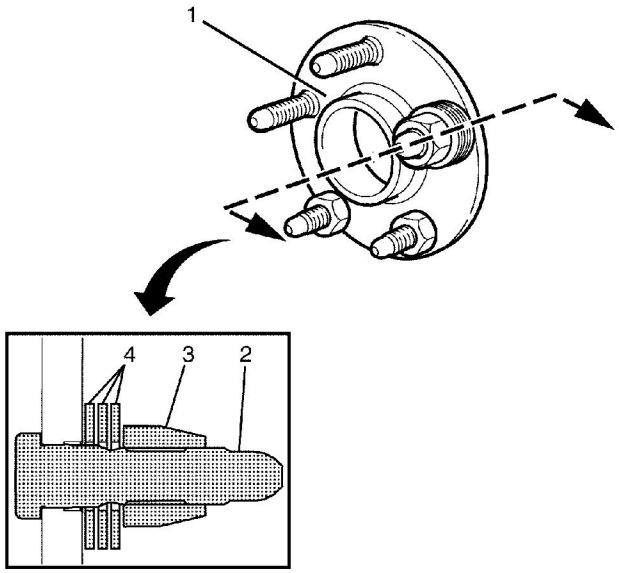


7. Secure the rear driveshaft with wire to protect it from damage.
8. Install the 7208 (1) to the wheel hub (2).
9. Press the rear driveshaft from the wheel hub using the 7208 (1).
10. Remove the 7208 (1) from the wheel hub (2).



11. Install a wheel nut (2) flush with the end of the wheel stud (3).
12. Remove the wheel stud (3) from the wheel hub (4) using the C-4150-C (1).
13. Repeat steps 11 and 12 for any additional wheel studs that require replacement.

Installation Procedure

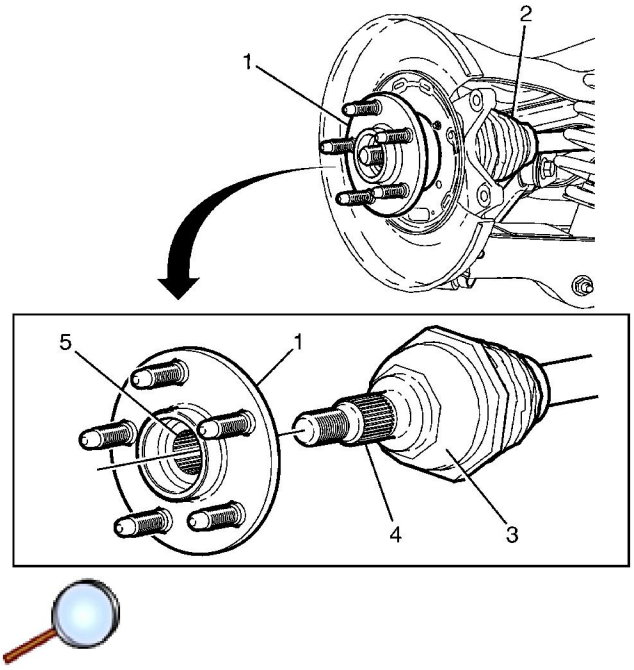


1. Install the wheel stud (2) to the wheel hub (1).

Caution: Refer to Fastener Caution in the Preface section.

Note: Suitable sized spacing washers (4) must be used to fully seat the wheel stud (2).

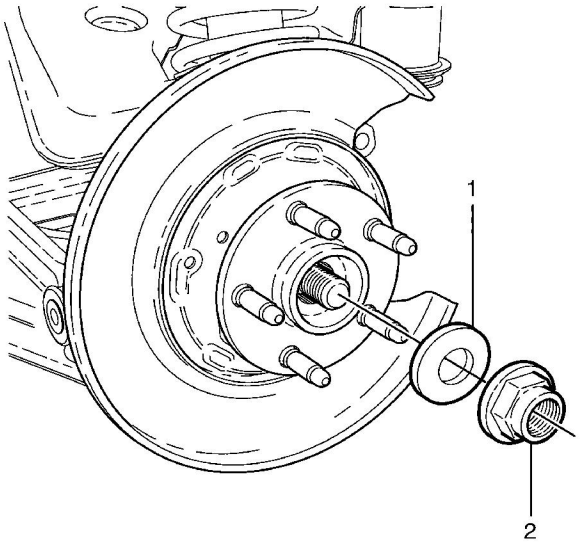
2. Install spacing washers (4) and an inverted wheel nut (3) onto the replacement wheel stud (2) and tighten to **170 N·m (125 lb ft)**.
3. Remove the wheel nut (3) and spacing washers (4).
4. Repeat steps 1 to 3 for any additional studs that require replacement.



Note: Lightly lubricate the rear driveshaft outer splined end (4) with the recommended differential lubricant.

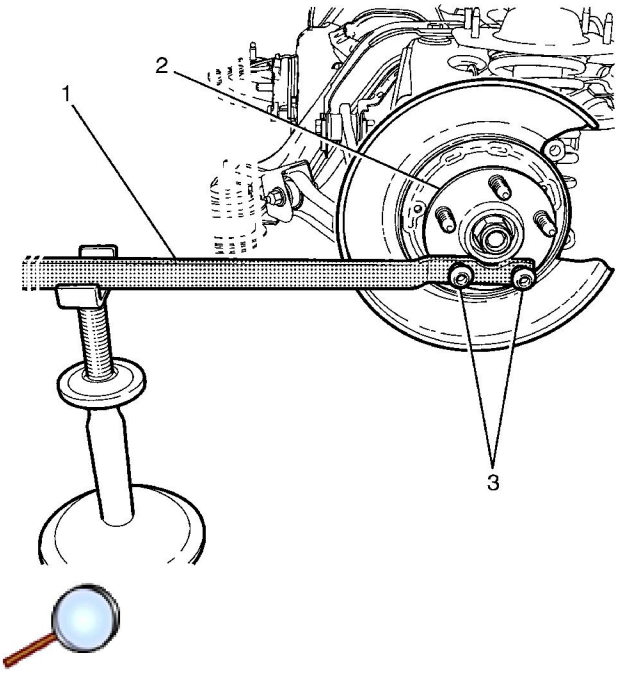
Note: DO NOT excessively push the rear driveshaft (3) through the wheel hub (1).

5. Remove the rear driveshaft securing wire, used in the removal process to prevent damage.
6. Push the rear driveshaft outer splined end (4) into the splined cavity (5) of the wheel hub (1).



Note: A NEW nut and NEW washer must be used when installing the rear drive shaft.

7. Install the rear driveshaft NEW retaining nut (2) and NEW washer (1).



8. Secure the KM-468 (1) and tighten the wheel nut (3) to pull the stud (2) into place.

   Tighten
   Tighten the nut a first pass to 150 N·m (111 lb ft).

   Tighten
   Loosen the nut in a second pass 180 Degrees.

   Tighten
   Tighten the nut a final pass to 320 N·m (259 lb ft).

9. Remove the KM-468 (1).
10. Remove the rear brake disc. Refer to Rear Brake Rotor Replacement.
11. Install the rear wheel. Refer to Tire and Wheel Removal and Installation.
12. Remove the safety stands.
13. Lower the vehicle to the ground.